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ANNUAL PLANNING INFORMATION
FISCAL YEAR 1985

MICHIGAN

Prepared by

MICHIGAN EMPLOYMENT SECURITY COMMISSION
Bureau of Research and Statistics
Labor Market Analysis

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PREFACE

This Annual Planning Information Report, published by the Michigan Employment Security Commission, Bureau of Research and Statistics, is an attempt to fulfill many of the data needs required by local planners. This report contains standardized information which is comparable with that prepared for the other service delivery areas in Michigan. Data prepared by MESC is published along with information from other agencies in an attempt to provide area planners with an awareness of the broad range of information which is currently available for local planning purposes. The report's appendixes contain specially prepared information tables intended to be used in conjunction with other data and narrative portions of this report. These tables include information on MESC applicants, claimants and occupational employment projections to 1990.

This information was developed to meet the Michigan Department of Labor, Bureau of Employment and Economic Development's current planning guidelines and is the most comprehensive fiscal year data currently available. The MESC Labor Market Analysis staff utilized various data resources to estimate or project area planning information. In order to facilitate the use of this package, sections on table descriptions and glossary of terms are included. Data limitations, interpretation, and application are discussed in the table description section. User questions and suggestions are welcome.

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I. AREA PROFILE

Michigan is divided into two peninsulas by the Straits of Mackinac and is bordered by four of the five Great Lakes, the states of Indiana, Ohio and Wisconsin and the Canadian Province of Ontario. In terms of land area, Michigan is the 23rd largest state but its coastline is second only to Alaska. Michigan's aquatic scenery consists of a 3,000 mile shoreline that extends along the Great Lakes, and inland lakes that exceed 11,000 in number. In addition to 6.4 million acres of public forests, the state's 14,000 campsites and 83 parks and recreational areas have made Michigan a popular vacation-land in which billions of tourist dollars are spent annually.

The two peninsulas of Michigan are connected by the five mile long Mackinac Bridge, the third longest suspension span in the United States. The Upper Peninsula is rich in iron ore, copper and other minerals. The Lower Peninsula also has vast natural resources (oil, natural gas and salt), however, primary economic activity is centered around automobile manufacturing. Although efforts have been made toward industrial diversification, the transportation equipment industry and its vast network of supplier plants continue to form the mainstay of the state's economy.

Michigan consists of 83 counties, which are grouped into 64 labor market areas (LMA's), of which 12 are defined as Standard Metropolitan Statistical Areas (SMSA's). Lansing, the state's legislative capital and fifth largest city, is centrally located in the southern portion of the Lower Peninsula. Detroit, the state's commercial capital and largest city with a population of 1.2 million, is situated in the southeastern corner of the Lower Peninsula. With the central administrative offices of the three largest automakers and numerous factories and auto-related facilities, the Detroit metropolitan area is the focal point of manufacturing and trade activity in the state.

II. JTPA TARGET POPULATION GROUPS

This chapter contains tables that are designed to provide employment and training planners with the basic information on target population groups as specified in Title II of the Job Training Partnership Act (JTPA). Title II mandates job training programs for economically disadvantaged and other individuals facing barriers to employment to facilitate their entry into permanent private sector employment. This chapter has been designed to meet the planning guidelines established by the Michigan Department of Labor, Bureau of Employment and Economic Development, in order to implement the provisions of Title II.

The first table contains information on the eligible population in the service delivery area. The eligible population consists of those individuals who are economically disadvantaged. This is the primary target group as JTPA legislation requires that at least 90 percent of participants served be economically disadvantaged. The table provides demographic information on the local area's economically disadvantaged population and total population as well as the economically disadvantaged population adjusted for labor force participation. Information in this table may be used to evaluate the local area's universe of need in terms of overall funding and distribution of services. In addition, the information is a necessary component in the determination of program planning and delivery.

The second section of the chapter includes tables which are presented to assist in analyzing other target population groups that may be served under the JTPA "ten percent provision". This provision stipulates that up to ten percent of the participants in all training programs may be individuals who are not economically disadvantaged but have encountered barriers to employment. The tables within this section provide estimates for those groups specifically identified in the legislation. However, the legislation does not limit its coverage to those specifically identified. The information in these tables may be used to evaluate those groups within the "ten percent provision" category most in need of training services.

The third section in the chapter contains special tables that address JTPA operational and equity issues. The first table reflects the ratio of government to wage and salary employment. This information is used to regulate the distribution of participants in on-the-job training between private and government employment. The second table reflects the ratio of private employment to population. This information is one of several criteria used to justify administrative costs in excess of the 30 percent limitation. The information comparing WIN registrants to economically disadvantaged is used as a measure to indicate the provision of equitable services. The last table in the section provides information on welfare recipients and may be useful for additional program planning.

For a more complete description of the source data and methodology, please refer to the following chapter on table descriptions.

TABLE 1

TITLE II ELIGIBLE POPULATION
1982
(Data in Thousands)

MICHIGAN

	AREA POPULATION		
	TOTAL	ECONOMICALLY DISADVANTAGED	LABOR FORCE ATTACHED AND ECONOMICALLY DISADVANTAGED
Total 14+[1]	7093	1200	676
Male	3418	449	314
Female	3675	751	362
Age Group			
14-15	341	60	NA
16-19	690	147	74
20-21	322	83	58
22-54	3983	616	466
55-64	834	123	60
65+	923	171	18
Race/Ethnic			
White	6097	841	490
Black	822	313	159
American Indian or Alaskan Native	30	10	6
Asian or Pacific Islander	43	7	4
Hispanic	101	29	17

(1) Note: Labor force data for 14 and 15 year olds are not available, therefore, demographic and age related labor force data reflect only those 16 years old and older.

Source: Michigan Employment Security Commission
Bureau of Research and Statistics

TABLE 2

TEENAGE PARENTS
BY SERVICE DELIVERY AREA*

AREA	TOTAL	ECONOMICALLY DISADVANTAGED
Barry-Branch-Calhoun	565	316
Berrien-Cass-Van Buren	780	580
Lansing Tri-County	900	500
City of Detroit	4360	2920
Thumb Area	676	299
CAPC	462	230
Region II	780	400
Kalamazoo-St. Joseph	872	402
GRAETC	1220	660
Livingston-Washtenaw	560	140
Macomb-St. Clair	1040	400
Saginaw-Midland-Bay	1218	677
Downriver-Monroe	1207	447
Oakland County (Balance)	703	225
Muskegon-Oceana	560	420
Allegan-Ottawa	454	188
Pontiac Area	670	250
Genesee-Shiawassee	1838	1094
Wayne County (Balance)	1100	460
Region 7B	380	160
West Central Michigan	400	260
Northeast Michigan	360	260
Northwest Michigan	500	260
Eastern Upper Peninsula	194	95
Central Upper Peninsula	558	243
Western Upper Peninsula	188	29
State of Michigan	22545	11915

*Source: 1980 Census

TABLE 3

LIMITED ENGLISH PROFICIENCY
BY SERVICE DELIVERY AREA*

AREA	TOTAL	ECONOMICALLY DISADVANTAGED
Barry-Branch-Calhoun	580	196
Berrien-Cass-Van Buren	1180	500
Lansing Tri-County	2320	1100
City of Detroit	13960	4740
Thumb Area	557	174
CAPC	475	240
Region II	960	300
Kalamazoo-St. Joseph	691	341
GRAETC	2500	800
Livingston-Washtenaw	1480	400
Macomb-St. Clair	6780	1220
Saginaw-Midland-Bay	1776	766
Downriver-Monroe	2441	537
Oakland County (Balance)	5306	1378
Muskegon-Oceana	300	100
Allegan-Ottawa	999	475
Pontiac Area	1256	559
Genesee-Shiawassee	1509	392
Wayne County (Balance)	7460	2020
Region 7B	380	80
West Central Michigan	260	140
Northeast Michigan	260	120
Northwest Michigan	520	140
Eastern Upper Peninsula	192	69
Central Upper Peninsula	739	280
Western Upper Peninsula	636	215
State of Michigan	55517	17282

*Source: 1980 Census

TABLE 4

ALCOHOLICS AND ADDICTS
FISCAL YEAR 1981/1982[1]

AREA	ADMISSIONS		
	TOTAL	ALCOHOL	DRUGS
Michigan	68,144	50,960	17,184
Barry	246	222	24
Branch	104	95	9
Calhoun	584	469	115
SDA TOTAL	934	786	148
Berrien	1,362	1,273	89
Cass	205	184	21
Van Buren	770	634	136
SDA TOTAL	2,337	2,091	246
City of Detroit	NA	NA	NA
Downriver C.C.	NA	NA	NA
Monroe	716	569	147
SDA TOTAL	NA	NA	NA
Genesee	6,160	4,394	1,766
Shiawassee	647	326	321
SDA TOTAL	6,807	4,720	2,087
Kent	4,390	3,706	684
Jackson	1,165	1,065	100
Hillsdale	209	191	18
Lenawee	591	537	54
SDA TOTAL	1,965	1,793	172
Kalamazoo	2,324	2,080	244
St. Joseph	493	432	61
SDA TOTAL	2,817	2,512	305
Clinton	263	217	46
Eaton	283	237	46
Ingham	1,971	1,430	541
SDA TOTAL	2,517	1,884	633
Livingston	454	374	80
Washtenaw	1,533	1,319	214
SDA TOTAL	1,987	1,693	294

TABLE 4, (Continued)
ALCOHOLICS AND ADDICTS

AREA	ADMISSIONS		
	TOTAL	ALCOHOL	DRUGS
Macomb	4,761	3,671	1,090
St. Clair	1,120	1,001	119
SDA TOTAL	5,881	4,672	1,209
Muskegon	752	490	262
Oceana	75	67	8
SDA TOTAL	827	557	270
Oakland[2]	6,102	5,162	940
Allegan	582	542	40
Ottawa	735	642	93
SDA TOTAL	1,317	1,184	133
Pontiac Area	NA	NA	NA
Saginaw	1,698	1,095	603
Midland	275	237	38
Bay	949	855	94
SDA TOTAL	2,922	2,187	735
Wayne[2]	17,042	8,990	8,052
Arenac	27	23	4
Clare	194	159	35
Gladwin	147	131	16
Iosco	108	102	6
Ogemaw	87	84	3
Roscommon	109	101	8
SDA TOTAL	672	600	72
Huron	160	143	17
Lapeer	470	430	40
Sanilac	173	149	24
Tuscola	320	291	29
SDA TOTAL	1,123	1,013	110
Gratiot	231	201	30
Ionia	230	190	40
Isabella	349	302	47
Montcalm	119	97	22
SDA TOTAL	929	790	139
Alcona	42	35	7

TABLE 4. (Continued)
ALCOHOLICS AND ADDICTS

AREA	ADMISSIONS		
	TOTAL	ALCOHOL	DRUGS
Alpena	211	166	45
Cheboygan	155	140	15
Crawford	78	77	1
Montmorency	45	37	8
Oscoda	24	18	6
Otsego	80	70	10
Presque Isle	58	53	5
SDA TOTAL	693	596	97
Antrim	96	87	9
Benzie	44	43	1
Charlevoix	252	202	50
Emmet	230	213	17
Grand Traverse	535	507	28
Kalkaska	69	64	5
Leelanau	91	90	1
Manistee	174	155	19
Missaukee	29	27	2
Wexford	134	122	12
SDA TOTAL	1,654	1,510	144
Lake	158	154	4
Mason	192	157	35
Mecosta	170	148	22
Newaygo	255	220	35
Osceola	121	116	5
SDA TOTAL	896	795	101
Alger	94	83	11
Delta	346	288	58
Dickinson	278	251	27
Marquette	1,091	936	155
Menominee	154	145	9
Schoolcraft	57	52	5
SDA TOTAL	2,020	1,755	265
Chippewa	266	222	44
Luce	56	48	8
Mackinac	57	54	3
SDA TOTAL	379	324	55
Baraga	278	235	43
Gogebic	92	83	9
Houghton	545	474	71
Iron	212	196	16

TABLE 4, (Continued)
ALCOHOLICS AND ADDICTS

AREA	ADMISSIONS		
	TOTAL	ALCOHOL	DRUGS
Keweenaw	23	22	1
Ontonagon	67	61	6
SDA TOTAL	1,217	1,071	146

(1)Source: Michigan Substance Abuse Information Clearinghouse

(2)Estimates for county only, not consortium

TABLE 5

OFFENDERS
BY SERVICE DELIVERY AREAS*

AREA	TOTAL	PAROLEES	CORRECTION CENTER
Barry-Branch-Calhoun	339	151	188
Berrien-Cass-Van Buren	738	240	498
Lansing Tri-County	469	178	291
City of Detroit	NA	NA	NA
Thumb Area	135	71	64
CAPC	154	68	86
Region II	589	289	300
Kalamazoo-St. Joseph	531	264	267
GRAETC	1016	424	592
Livingston-Washtenaw	702	347	355
Macomb-St. Clair	683	318	365
Saginaw-Midland-Bay	654	280	374
Downriver-Monroe	NA	NA	NA
Oakland County (Balance)	1671	925	746
Muskegon-Oceana	485	203	282
Allegan-Ottawa	193	89	104
Pontiac Area	NA	NA	NA
Genesee-Shiawassee	966	379	587
Wayne County (Balance)	7911	3496	4415
Region 7B	74	25	49
West Central Michigan	89	40	49
Northeast Michigan	80	43	37
Northwest Michigan	187	86	101
Eastern Upper Peninsula	31	15	16
Central Upper Peninsula	93	45	48
Western Upper Peninsula	42	16	26
State of Michigan	17832	7992	9840

*Michigan Department of Corrections. Data does not reflect total inmate population.

TABLE 6

HANDICAPPED POPULATION
MICHIGAN*

	TOTAL	IN LABOR FORCE		NOT IN LABOR FORCE ABLE TO WORK	
		TOTAL	ECONOMICALLY DISADVANTAGED	TOTAL	ECONOMICALLY DISADVANTAGED
TOTAL 16+	878194	232983	54536	645074	300012
Male	411381	154101	28567	257210	82137
Female	466813	78882	25969	387864	217875
16-19	20950	7846	4990	13085	11821
20-21	14608	7652	2886	6945	5136
22-44	193897	105676	28706	88186	66941
45-54	123319	48814	8993	74480	49988
55-64	198665	48114	6444	150524	71879
65+	326755	14881	2517	311854	94247
White	719846	193444	41625	526295	224057
Black	140474	33786	11009	106674	68101
Am Indian	5022	1625	669	3389	2122
Asian Pacific	1913	519	59	1394	779
Hispanic	10939	3609	1174	7322	4953

*Source : 1980 Census

TABLE 7

HIGH SCHOOL DROPOUTS
MICHIGAN*

	1980 POPULATION		HIGH SCHOOL DROPOUTS	
	TOTAL	ECONOMICALLY DISADVANTAGED	TOTAL	ECONOMICALLY DISADVANTAGED
Total 16+	6731411	1029464	1804990	435905
Male	3215305	366550	870381	145858
Female	3516106	662914	934609	290047
16-21	1071888	243413	134057	46881
22-64	4804002	621255	1136986	265745
65+	855521	164796	533947	123279
White	5788873	739933	1455963	294884
Black	781737	251197	293237	122709
Am. Indian	28028	8106	10536	3863
Asian Pacific	37273	6524	5854	1628
Hispanic	95500	23704	39400	12821

*Source: 1980 Census

TABLE 8

VETERANS
BY SERVICE DELIVERY AREA*

	VETERAN POPULATION		VETERAN LABOR FORCE	
	TOTAL	ECONOMICALLY DISADVANTAGED	TOTAL	ECONOMICALLY DISADVANTAGED
Barry-Branch-Calhoun	28639	2444	23113	1482
Berrien-Cass-Van Buren	33820	2840	28140	1660
Lansing Tri-County	46120	2740	39740	1700
City of Detroit	126740	18420	92960	8580
Thumb Area	22058	2140	18064	1344
CAPC	21481	1760	17755	1031
Region II	33960	2460	28580	1420
Kalamazoo-St. Joseph	31221	1846	26909	1171
GRAETC	52100	3280	43420	1480
Livingston-Washtenaw	39760	2160	34800	1160
Macomb-St. Clair	108160	5300	94040	3020
Saginaw-Midland-Bay	48239	3998	39459	2253
Downriver-Monroe	64996	3738	54820	1867
Oakland County (Balance)	103348	3444	91159	2170
Muskegon-Oceana	23340	2080	19000	1200
Allegan-Ottawa	26416	1639	22568	919
Pontiac Area	27339	2028	23354	1212
Genesee-Shiawassee	64023	4673	52255	2573
Wayne County (Balance)	100360	4400	85640	2380
Region 7B	17300	2060	11340	1100
West Central Michigan	15580	1900	11360	940
Northeast Michigan	15320	1920	11160	1080
Northwest Michigan	26240	2940	19760	1560
Eastern Upper Peninsula	6289	682	4845	424
Central Upper Peninsula	27172	2862	21265	1672
Western Upper Peninsula	12153	1468	8053	640
State of Michigan	1122174	85222	923559	46038

*Source: 1980 Census

TABLE 9

DISPLACED HOMEMAKERS
BY SERVICE DELIVERY AREA*

AREA	TOTAL	ECONOMICALLY DISADVANTAGED
Barry-Branch-Calhoun	1480	996
Berrien-Cass-Van Buren	2220	1680
Lansing Tri-County	2200	1460
City of Detroit	29560	23420
Thumb Area	1182	853
CAPC	787	533
Region II	1920	1040
Kalamazoo-St. Joseph	1054	739
GRAETC	2520	1560
Livingston-Washtenaw	1220	540
Macomb-St. Clair	4860	2400
Saginaw-Midland-Bay	3258	2290
Downriver-Monroe	3562	1921
Oakland County (Balance)	3481	1509
Muskegon-Oceana	1440	880
Allegan-Ottawa	778	541
Pontiac Area	1812	1109
Genesee-Shiawassee	5331	3752
Wayne County (Balance)	6080	3320
Region 7B	960	560
West Central Michigan	840	480
Northeast Michigan	720	480
Northwest Michigan	1200	700
Eastern Upper Peninsula	342	219
Central Upper Peninsula	1157	707
Western Upper Peninsula	798	464
State of Michigan	80762	54153

*Source: 1980 Census

TABLE 10

RATIO OF CIVILIAN GOVERNMENT
TO WAGE AND SALARY EMPLOYMENT
BY SERVICE DELIVERY AREA

AREA	TOTAL	PRIVATE	GOVERNMENT	PERCENT
Barry-Branch-Calhoun	66975	54975	15000	28
Berrien-Cass-Van Buren	77325	63600	13725	18
Lansing Tri-County	172200	113275	58925	34
City of Detroit	NA	NA	NA	NA
Thumb Area	39150	27000	12150	31
CAPC	51225	35750	15475	30
Region II	82800	68050	14750	18
Kalamazoo-St. Joseph	109900	91375	18525	17
GRAETC	207600	185300	22300	11
Livingston-Washtenaw	147475	99225	48250	33
Macomb-St. Clair	235500	193525	41975	18
Saginaw-Midland-Bay	137700	118600	19100	14
Downriver-Monroe	NA	NA	NA	NA
Oakland County(1)	409575	364825	44750	11
Muskegon-Oceana	56600	46900	9700	17
Allegan-Ottawa	71125	60450	10675	15
Pontiac Area	NA	NA	NA	NA
Genesee-Shiawassee	172300	145000	27300	16
Wayne County(1)	879575	745625	133950	15
Region 7B	22725	15600	7125	31
West Central Michigan	28025	18600	9425	34
Northeast Michigan	28750	21375	7375	26
Northwest Michigan	65625	52575	13050	20
Eastern Upper Peninsula	12925	7625	5300	41
Central Upper Peninsula	53975	34375	19600	36
Western Upper Peninsula	24600	16100	8500	35
State of Michigan(2)	3189300	2610000	579300	18

(1) Estimates for county only, not consortium.

(2) Sum of areas is less than Michigan total primarily due to the exclusion of Monroe data.

TABLE 11

RATIO OF PRIVATE EMPLOYMENT TO POPULATION
BY SERVICE DELIVERY AREA

AREA	PERCENT
United States	44
Michigan[1]	38
Service Delivery Areas	
Barry-Branch-Calhoun	33
Berrien-Cass-Van Buren	30
Lansing Tri-County	36
City of Detroit[2]	NA
Thumb Area	19
CAPC	25
Region II	32
Kalamazoo-St. Joseph	45
GRAETC	56
Livingston-Washtenaw	36
Macomb-St. Clair	31
Saginaw-Midland-Bay	39
Downriver-Monroe[2]	NA
Oakland County	48
Muskegon-Oceana	36
Allegan-Ottawa	35
Pontiac Area[2]	NA
Genesee-Shiawassee	39
Wayne County	43
Region 7B	17
West Central Michigan	20
Northeast Michigan	25
Northwest Michigan	34
Eastern Upper Peninsula	22
Central Upper Peninsula	25
Western Upper Peninsula	22

(1) Sum of areas is less than Michigan total primarily due to the exclusion of Monroe data.

(2) Estimates for county only, not consortium.

TABLE 12

ADC-WIN REGISTRANTS TO ECONOMICALLY DISADVANTAGED

	ADC/WIN REGISTRANTS[1]	ECONOMICALLY DISADVANTAGED 16+[2]	PERCENT
MICHIGAN	266097	1140000	23.3

[1] Source: Michigan Department of Social Services

[2] Source: Michigan Employment Security Commission Bureau of Research and Statistics

TABLE 13

WELFARE RECIPIENTS
MICHIGAN
DECEMBER 1, 1983

Total	462293
Male	170720
Female	291573
14-15	37436
16-19	62208
20-21	33533
22-44	276501
45-54	32431
55+	19784
White	238475
Black	207443
American Indian	1812
Other	5384
Hispanic	9179

Source: Michigan Department of Social Services

III. TABLE DESCRIPTIONS

Following is a discussion of basic data elements presented in this report. The data elements are divided into several major groups: 1. the eligible population which covers the economically disadvantaged; 2. those target groups covered by the Title II "ten percent provision"; 3. special JTPA tables which cover data specifically required in the legislation; 4. other planning information which covers data on industry, occupation and labor force. Those tables based on census data were generated from Summary Tape File 4 (STF-4) micro files. Following each data element is a discussion of issues involved, particularly definitions and data availability.

Title II - Eligible Population

In order to provide a more current estimate of the disadvantaged, and to provide a labor market perspective on the disadvantaged, new procedures were followed in developing the data for this primary target group. The estimates for the economically disadvantaged population in 1982 were computed by linking forward the 1980 Census information. The links were developed using the March 1982 current population survey for Michigan.

This table also contains for the first time a profile of the disadvantaged "adjusted" by age/race/sex for potential labor force participation. That is, the last column in the table depicts the disadvantaged assuming that they were to participate in the labor force to the same extent as the general population. This is an important planning guide since it more closely reflects the disadvantaged who are likely to be active in the job market and, therefore, to avail themselves of JTPA services. The labor force participation "adjustment" provides a clearer profile of the disadvantaged who are likely users of JTPA services than does the structure of the total disadvantaged. Population-wide labor force participation rates by age/race/sex are used for the "adjustment" rather than the actual disadvantaged participation rates. The labor force participation rates of the disadvantaged are significantly lower because of the barriers to employment that the disadvantaged experience. However, one of the basic purposes of JTPA is "to prepare (individuals) for entry into the labor force...." Use of the overall rates address this purpose, since they represent the "potential" for labor market participation by the disadvantaged rather than the actual pattern. The labor force attachment of the general population is significantly higher than that of the disadvantaged, and it is unlikely that the participation rates of the disadvantaged could exceed those of the total population. In effect the overall labor force "adjustment" attempts to answer indirectly a question that is not directly addressed in the existing data: "Who are the disadvantaged who would be active in the labor market if their barriers to employment were reduced?"

The 1982 labor force participation rates are estimated by updating the 1980 Census Patterns. Participation rate trends, as shown by the current population survey, are used to compute the 1982 data. This table provides demographic detail for each service delivery area in

total. County breakouts will be available only as percent distributions of SDA totals.

Title II - Ten Percent Provision - Target Groups

Teenage Parents

The information in this table is based on 1980 Census data. Although teenage parents may be defined as teenagers aged 14-19 with dependent children, census data is only available for 15-19 year olds with dependent children. This table reflects the total teenage parent population as well as those economically disadvantaged for each service delivery area.

Limited English Language Proficiency

The information in this table is based on 1980 Census data on ability to speak English. This information is derived from responses to question 13c in the census where persons who reported they spoke a language other than English where asked to characterize their ability to speak English. These responses are extremely subjective since they are based on the respondent's own perception.

Information is provided for each SDA on total persons as well as economically disadvantaged persons in this target group.

Alcoholics and Addicts

This table reflects data on admissions to substance abuse treatment programs and is generated by the Michigan Substance Abuse Information Clearinghouse. Since information was only available at the county level, data for city level service delivery areas is not provided.

Offenders

The term "offender" means any adult or juvenile who is or has been subject to any stage of the criminal justice process for whom services under JTPA may be beneficial or who requires assistance in overcoming artificial barriers to employment resulting from a record of arrest or conviction. This table presents actual count data from the Michigan Department of Corrections. The table reflects parolees as of December 1, 1983 by county from which sentenced. The information on correction centers reflects offenders located in residential centers as of November 30, 1983. The correction center information is by county and reflects the location of the facility. This information does not include offenders in state prisons. However, state prison inmate data will be available in the near future. This information does not include offenders in local jails, juvenile courts or the federal facility in Milan. Since information was only available at the county level, data for city level service delivery areas are not provided.

Handicapped

A handicapped individual is defined as an individual who has a physical or mental disability which for such individual constitutes or results in a substantial handicap to employment. The information in this table is derived from 1980 Census data. The table presents demographic characteristics on the total handicapped population. Additional information is provided for both total and economically disadvantaged handicapped individuals, in the labor force and not in the labor force but able to work. Census information for the handicapped reflect public transportation disability and is only available for those labor force attached individuals 16 years and older. Persons are identified as having a public transportation disability if they had a health condition which had lasted six months or more and which made it difficult or impossible for them to use buses, trains, subways or other forms of public transportation. Information in the table is only available for the total SDA.

School Dropouts

In addition to the ten percent provision, services to school dropouts are also mandated under Section 203(b).3 as an "equitable service" item and under Section 205(b).1 as a priority item. According to JTPA legislation a school dropout is an individual who is: 1) not attending any school and is not subject to a compulsory attendance law, and 2) who has not received a secondary school diploma or a certificate from a program of equivalency for such a diploma.

The information in this table is derived from 1980 Census data, and provides demographic characteristics for persons 16 years and older in the general population as well as the school dropout population in 1980. In addition, for both categories information is provided on those who are economically disadvantaged. Information in the table is only available for the total SDA.

Veteran Population and Labor Force

The information in this table is based on 1980 Census data. The term "veteran" as defined by JTPA is an individual who served in the active military, naval, or air service, and who was discharged or released therefrom under conditions other than dishonorable.

According to 1980 Census data, more than one-third of all males 16 years and older are veterans. Since, a population estimate of all veterans will significantly overstate service needs, additional information is provided reflecting labor force attachment as well as those veterans in the population and labor force who are economically disadvantaged.

Displaced Homemakers

The following statement represents an updated definition for displaced homemakers consistent with legislation and data availability. A displaced homemaker is an individual who is:

1. 35-62 years of age

2. divorced, separated or widowed

3. currently not employed

4. has not been employed within the last five years

These characteristics are cross-tabulated from 1980 Census data to arrive at a more current estimate of "displaced homemakers" in both definitional and data terms. Information in the table is only available for the total SDA.

Older Workers/Older Individuals

Older workers are defined as those 55 years of age and over. Services are mandated in two sections of JTPA; Section 124 and the ten percent provision of Title II. Section 124 refers to disadvantaged older individuals, and is presented as a subset of the economically disadvantaged information in Table I. The ten percent provision refers to all older workers, and is a subset of the civilian labor force data in Table 15.

Special JTPA Tables

Ratio of Civilian Government to Wage and Salary Employment

This ratio is used to regulate the distribution of participants in on-the-job-training (OJT) between private and government employment. The information is derived from the Bureau of Labor Statistic's 790 Employment Survey data base generated by MESC-Research and Statistics. The data base is a monthly employment survey of establishments by place of work and does not include agricultural or self-employment. The wage and salary employment estimates, based on place of work are used rather than total employment estimates from the census which are based on place of residence. The place of work data was considered more consistent with the legislation in terms of current information and the analysis of area industry structure.

For most SDA's, the data in the table is the percent of government to total wage and salary employment computed from MESC labor market area (LMA) wage and salary employment data. For SDA's which do not conform to LMA boundaries, the LMA data were disaggregated using county employment estimates based on employer reports under the unemployment insurance system (ES-202 report). Annual average 1982 wage and salary data were used for SDA's conforming to LMA boundaries. December 1982 ES-202 data were used to disaggregate county employment for SDA's not conforming to labor market boundaries. Employment estimates by place of work are only available for SDA's comprising whole counties. It is recommended that sub-county SDA's use the information provided for their respective county.

Ratio of Private Employment to Population

This ratio is one of several criteria used to justify administrative costs in excess of the 30 percent limitation [Section 108, part 2, b(ii)]. The employment information is derived from the establishment survey data base described in the previous table. The population data is based on 1980 census population 16 years of age and older.

ADC-WIN Registrants to Economically Disadvantaged

Title II Section 203.b3 mandates service to WIN participants "taking into account their proportion of economically disadvantaged persons sixteen years of age or over." This table compares the number of WIN registrants to the number of economically disadvantaged population sixteen years of age and over. The information on WIN participants is from the Michigan Department of Social Services and represents an actual count of registrants as of December 1, 1983.

Welfare Recipients

Information in this table may be useful for additional program planning needs. The table is based on information from the Michigan Department of Social Services and represents as of December 1, 1983 an actual count of individuals receiving financial support from the Aid to Families with Dependent Children and General Assistance programs. The information is provided by sex, race and age for each service delivery area.

Other Planning Tables

Civilian Labor Force

Civilian labor force estimates for FY 1985 are available for the state, labor market areas and service delivery areas and are based on the assumption of continued improvement in the State's economy during FY 1985. Except for the state, information is available for mutually exclusive categories by sex, age and race.

Total labor force, employment and unemployment forecasts were based upon area population and industry employment trends. Distributions by age, race, sex and geographic detail were derived using 1980 census information.

Private Industry Employment Analysis

This information is based on the ES-202 listing of all employers covered by the Michigan Employment Security Act. This listing covers over 90 percent of all employers doing business in Michigan. The major groups which are wholly or partially excluded are railroad employees, commission sales workers, unpaid family workers and government.

Industry employment figures are provided for the total SDA. In some instances, information for counties within a multi-county SDA may be available upon request. Since this data is not available below the county level, sub-county SDA's are provided with their respective county

level information. Average employment levels are presented by two digit Standard Industrial Classification Codes for the latest quarter available and the comparable period of the prior year. The absolute change in employment over the year is also shown. Data for some industries have been excluded to prevent disclosure of confidential information. Since this employment data represents the most current count of jobs by place of work at the county level, it is useful in analyzing local area employment structure and trends.

Appendixes

Job Service Applicants

This information was developed from the Employment Security Automated Reporting System (ESARS). Since ESARS is primarily an administrative data reporting system, care should be taken in its interpretation and use. However, the data relates to persons in the active files of MESC, and generally reflect a significant number of individuals seeking employment. Therefore, this data may be used to assess and describe current labor supply.

Unemployment Insurance Claimants

This table provides information on the characteristics of claimants drawing regular and federal supplemental compensation benefits during the survey week of October 1983.

Occupational Employment Projections - 1990

The system used to develop the occupational projections is generally referred to as the Occupational Employment Statistics (OES) Matrix system. The system can be separated into three major components: (1) Industry projections; (2) The occupation by industry distribution, or "matrix," which transforms the industry employment figures into occupational employment; and (3) Estimates of replacement needs by occupation. Projections were developed for nearly 500 three-digit Standard Industrial Code (SIC) industries. The industry projections serve as inputs for the industry/occupation matrix. The matrix consists of industry staffing patterns for each of the 500 industries and serves as the basis for converting the industry estimates into occupational terms. Information is available for up to 1,400 detail occupational cells for each industry. The replacement needs estimates are derived from information on working life patterns, that is, data on the rates at which individuals in various demographic groups leave the labor force.

IV. LABOR MARKET DEVELOPMENTS

Michigan's economy finally began its long delayed turnaround in FY 1983. Following 45 consecutive months of double digit unemployment, the state's economy touched bottom in the second quarter of FY 1983 and has since moved on to a more positive recovery track. The unemployment rate peaked at 17.2 percent in December of 1982 and stood at 11.9 percent in December of 1983. Motor vehicle production was more than 50 percent higher in the fourth quarter of FY 1983 than in the second quarter. As a result, employment conditions have generally improved, with manufacturing leading the pace, as is typical during the first phase of the recovery.

The outlook is for this favorable trend to continue through FY 1985. Continued economic recovery is expected with strong gains in personal income as inflation stays moderate. Car and truck production is projected to increase to about 10.6 million units. One major uncertainty is the reaction of financial markets to the large government borrowings anticipated. If fears of inflation revive or if monetary policy does not accommodate these borrowing needs, interest rates could again rise sharply and derail the recovery. The consensus is that this will not occur during FY 1984, although there may be some slowing in the economy if monetary policy is tightened. A renewed upsurge in interest rates is, however, a major concern beyond 1984. Michigan's labor market will benefit as the pace of activity intensifies in the state's major industry. By FY 1985, the unemployment rate is projected to decline to 10.3 percent and wage and salary employment to rise by 9.1 percent from FY 1983 levels. Manufacturing employment should benefit the most from the cyclical upturn, expanding by 17.0 percent to 999,000. Nonmanufacturing job levels will also move up to 1,857,000, a gain of 7.4 percent. Only a slight increase is anticipated for government employment. The labor force is also expected to grow, but quite modestly, reflecting the continued high levels of unemployment.

Although the 1985 outlook represents a considerable improvement over the depressed conditions of FY 1983, the state's economy will still be operating at well below prerecession levels. The unemployment rate will still average in double digits, employment will be approximately 45,000 less than in 1979 and motor vehicle output will be well below its nearly 13 million unit production peak.

TABLE 14

LABOR FORCE AND
WAGE AND SALARY EMPLOYMENT
(Data in Thousands)

	FY 1983 7/82-6/83	FY 1984 7/83-6/84	FY 1985 7/84-6/85
	MICHIGAN		
Labor Force	4301	4330	4385
Employment	3629	3810	3933
Unemployment	672	520	452
Rate (percent)	15.6	12.0	10.3
Wage and Salary Emp.	3159	3297	3446
Manufacturing	854	930	999
Nonmanufacturing	1729	1785	1857
Government	576	582	590

TABLE 15

CIVILIAN LABOR FORCE BY AGE, SEX AND RACE
MICHIGAN - FISCAL YEAR 1985
(Data in Thousands)

	Total	16-19	20-21	22-44	45-54	55+
Total						
Civilian Labor Force	4385.1	403.3	235.4	2600.7	630.5	515.2
Employment	3933.1	322.6	191.1	2325.2	601.2	493.0
Unemployment	452.0	80.7	44.3	275.5	29.3	22.2
Rate (percent)	10.3	20.0	18.8	10.6	4.6	4.3
Male						
Civilian Labor Force	2502.4	208.3	128.4	1488.4	373.4	303.9
Employment	2260.2	166.2	102.6	1341.4	358.3	291.7
Unemployment	242.2	42.1	25.8	147.0	15.1	12.2
Rate (percent)	9.7	20.2	20.1	9.9	4.0	4.0
Female						
Civilian Labor Force	1882.7	195.0	107.0	1112.3	257.1	211.3
Employment	1672.9	156.4	88.5	983.8	242.9	201.3
Unemployment	209.8	38.6	18.5	128.5	14.2	10.0
Rate (percent)	11.1	19.8	17.3	11.6	5.5	4.7
White						
Civilian Labor Force	3822.2	348.7	203.0	2251.9	556.8	461.8
Employment	3485.3	288.0	169.7	2049.7	534.4	443.5
Unemployment	336.9	60.7	33.3	202.2	22.4	18.3
Rate (percent)	8.8	17.4	16.4	9.0	4.0	4.0
Nonwhite						
Civilian Labor Force	562.9	54.6	32.4	348.8	73.7	53.4
Employment	447.8	34.6	21.4	275.5	66.8	49.5
Unemployment	115 1	20.0	11.0	73.3	6.9	3.9
Rate (percent)	20.4	36.6	34.0	21.0	9.4	7.3

Source: Michigan Employment Security Commission
Bureau of Research and Statistics

V. EMPLOYMENT STRUCTURE AND DEVELOPMENTS

A. Industry Structure and Trends

During the first quarter 1983, statewide jobs within the private sector totalled 2,459,983. The state's private sector employment is heavily concentrated within the nonmanufacturing industries. The nonmanufacturing sector is large and diverse, representing over six out of every ten jobs. In the first quarter 1983, ten industry groups within the nonmanufacturing sector each employed over 50,000 workers. The more prominent industries in this sector include medical and business services, eating and drinking places and wholesale trade. Within nonmanufacturing, the service industry, specifically health and business services, have been the only industries statewide to exhibit employment stability and growth during the latest recessionary period.

As one of the Nation's ten largest industrial states, Michigan has historically been known as the country's center for the manufacturing of motor vehicles. The development of this basic industry to help serve the transportation needs of the U.S., as well as other countries, has formed the nucleus for the growth of numerous other related manufacturing industries in Michigan. In the first quarter 1983, manufacturing industries accounted for nearly 835,000 positions, representing 34 percent of private sector employment. The largest industries in Michigan's manufacturing base include transportation equipment, nonelectrical machinery and fabricated metals, which represent over 60 percent of manufacturing employment. While motor vehicle manufacturing operations have spread to other parts of the country and domestic production has given way to an increasing share of foreign imports, the state has lost some prominence as the "motor capital" of the world. However, the state's economic health is still strongly tied to its manufacturing sector, especially the production of automobiles. Although the transportation equipment industry has experienced deep employment reductions since the onset of the 1980 recession, as of late 1983, it appears to be slowly recovering and still remains the state's leading employment industry.

Comparing first quarters 1982 and 1983, the state's overall private sector jobs declined by nearly 73,000 or 2.9 percent. Approximately seven out of every ten jobs lost in the state were concentrated in the manufacturing sector. The nonelectrical machinery industry sustained the greatest decline with losses of over 27,000 jobs. Other industries with significant reductions included primary and fabricated metals, and transportation equipment.

The nonmanufacturing sector also experienced job declines as employment contracted by nearly 1.2 percent or 19,754 positions. The industries most affected include construction, wholesale trade-durables, communications, and trucking and warehousing. Although job loss was experienced overall in nonmanufacturing, employment gains were reflected in many industries. Significant employment growth was experienced in business services, eating and drinking places, medical services, social services, and miscellaneous retail trade stores.

The following table indicates the most favorable employment industries statewide. This listing is based on data contained in Table 17 for first quarters 1982 and 1983. The industries included in the listing are those which exhibited a significant employment base as well as significant employment growth for the 1982-1983 period.

TABLE 16

FAVORABLE EMPLOYMENT INDUSTRIES

INDUSTRY	INDUSTRY CODE
Apparel, Textile Products	23
Rubber, Misc. Plastic Products	30
Wholesale Trade-Nondurables	51
Food and Dairy Stores	54
Eating and Drinking Places	58
Misc. Retail Trade	59
Business Services	73
Medical Services	80
Legal Services	81
Education Services	82
Social Services	83

TABLE 17

PRIVATE INDUSTRY EMPLOYMENT ANALYSIS
MICHIGAN

SIC	INDUSTRY TITLE	1ST QUARTER EMPLOYMENT 1982	1983	CHANGE
01	AGRICULTURE-CROPS	5750	6076	326
02	AGRICULTURE-LIVESTOCK	646	736	90
07	AGRICULTURE SERVICES	6050	6170	120
08	FORESTRY	P	P	P
09	FISHERIES	55	63	8
10	METAL MINING	P	P	P
13	CRUDE PETROLEUM AND NAT GAS	5003	4244	-759
14	NONMETALLIC MINING, QUARRYING	2090	1619	-471
15	GENERAL BUILDING CONTRACTORS	19169	15902	-3267
16	GENERAL CONTRACTORS, EXC BLDG	14270	14002	-268
17	SPECIAL TRADE CONTRACTORS	47141	42935	-4206
20	FOOD AND KINDRED PRODUCTS	45299	42863	-2436
21	TOBACCO MANUFACTURING	P	P	P
22	TEXTILE MILL PRODUCTS	1655	1529	-126
23	APPAREL, TEXTILE PRODUCTS	14803	15531	728
24	LUMBER AND WOOD PROD	9591	9542	-49
25	FURNITURE AND FIXTURES	22102	21230	-872
26	PAPER AND ALLIED PRODUCTS	20055	19256	-799
27	PRINTING AND PUBLISHING	32660	32953	293
28	CHEMICAL AND ALLIED PRODUCTS	41927	39532	-2395
29	PETROLEUM AND COAL PRODUCTS	2724	2781	57
30	RUBBER, MISC PLASTIC PRODUCTS	28860	30078	1218
31	LEATHER PRODUCTS	P	P	P
32	STONE, CLAY, GLASS PROD	15118	13757	-1361
33	PRIMARY METAL PROD	56775	49588	-7187
34	FABRICATED METAL PROD	97456	92658	-4798
35	MACHINERY, NONELECTRICAL	142267	114578	-27689
36	ELECTRICAL MACHINERY	30181	29261	-920
37	TRANSPORTATION EQUIP	303761	297669	-6092
38	MEASURING AND CONTROLLING INSTR	13211	12722	-489
39	MISC MANUFACTURING	7178	6441	-737
40	RAILROADS, RAILWAY EXPRESS	P	P	P
41	LOCAL INTERURBAN TRANSIT	3862	3770	-92
42	TRUCKING AND WAREHOUSING	35242	33321	-1921
44	WATER TRANSPORTATION	734	800	66
45	AIR TRANSPORTATION	6288	6183	-105
46	PIPELINES	222	228	6
47	TRANSPORTATION SERVICES	4578	4863	285
48	COMMUNICATIONS	42637	40032	-2605
49	UTILITIES, SANITARY SERVICES	36619	37077	458
50	WHOLESALE TRADE-DURABLES	98869	93464	-5405
51	WHOLESALE TRADE-NONDURABLES	53268	54090	822
52	BUILDING MATERIALS	18823	18377	-446
53	GENERAL MERCHANDISE, TOTAL	82796	81021	-1775
54	FOOD AND DAIRY STORES	80583	81229	646
55	AUTO DEALERS, GAS STATIONS	57359	56464	-895

TABLE 17, (Continued)

PRIVATE INDUSTRY EMPLOYMENT ANALYSIS
MICHIGAN

SIC	INDUSTRY TITLE	1ST QUARTER EMPLOYMENT 1982	1983	CHANGE
56	APPAREL AND ACCESSORIES	32726	32278	-448
57	FURNITURE	18905	18229	-676
58	EATING AND DRINKING PLACES	171780	175003	3223
59	MISC RETAIL TRADE STORES	61528	63239	1711
60	BANKING	52742	51705	-1037
61	CREDIT AGENCIES	19515	19448	-67
62	SECURITY AND COMMODITY BROKERS	4175	4541	366
63	INSURANCE	33610	32424	-1186
64	INSURANCE AGENTS AND BROKERS	15334	15066	-268
65	REAL ESTATE	20700	20619	-81
66	REAL ESTATE INSURANCE AND LOAN OFF	376	366	-10
67	HOLDING AND OTHER INVESTMENT OFF	1502	1438	-64
70	HOTELS AND LODGING PLACES	22127	20787	-1340
72	OTHER PERSONAL SERVICES, TOTAL	35766	33455	-2311
73	BUSINESS SERVICES	91267	94759	3492
75	AUTOMOBILE REPAIR SERVICES	18899	19567	668
76	OTHER REPAIR SERVICES	9350	8719	-631
78	MOTION PICTURES, THEATERS	4132	4038	-94
79	MISC ENTERTAINMENT	22536	21529	-1007
80	MEDICAL, OTHER HEALTH	249941	252558	2617
81	LEGAL SERVICES	17951	18959	1008
82	EDUCATION SERVICES	15702	16641	939
83	SOCIAL SERVICES	29963	32128	2165
84	MUSEUMS, ART GALLERIES, ZOOS	1109	1120	11
86	NONPROFIT ORGANIZATIONS	23251	22810	-441
88	PRIVATE HOUSEHOLDS	2756	2684	-72
89	OTHER PROF, RELATED SERVICES	39470	35641	-3829
	TOTAL	2532833	2459983	-72850

P - Protected Information

Source: Michigan Employment Security Commission
Bureau of Research and Statistics - ES202

B. Occupational Trends

Information on occupational demand/supply is required by employment and training planners to ensure that programs meet labor market needs and that training is directed at occupations with good employment prospects. Occupational outlook information usually appears in the form of projected job openings. Job openings reflect occupational demand. Demand arises from growth in employment and also from the need to replace individuals who leave an occupation as a result of death or retirement. However, in addition to job openings data, planners need data on occupational supply in order to evaluate the adequacy of employment and training programs. Supply may be defined as those entering an occupation from institutional training programs. By using both demand and supply data, a better assessment can be made of the expected competition for jobs in many occupations.

The Michigan Employment Security Commission generates detailed statistics on current and projected occupational employment and related information on occupational demand and supply for Michigan and many of its subregions. This report contains a set of new occupational projections for the period 1980-1990 as well as a list of occupations showing favorable supply/demand relationships. A detailed listing of occupational projections to 1990 is provided in the appendix. Also, as noted above, evaluations of supply/demand relationships have been prepared using an earlier data base.

Of particular interest to employment and training planners would be the recently developed employment projections to 1990. A listing of occupational forecasts for Michigan can be found in the appendix. Notably, the largest employment changes are expected to occur in occupations that are predominant in the retail trade, construction, finance, medical, legal and social services, industries. These industries have traditionally been rapid growth industries statewide and are expected to be the most rapid growth sectors through 1990. Additionally, clerical occupations, found in most industries but also predominant in the finance industry and in government, are expected to follow industry trends and grow rapidly in the area.

The following table is derived from the Michigan Occupational Supply/Demand Report. The table includes a number of occupational employment areas where the total number of openings for workers is expected to be relatively large in Michigan and in which the supply/demand relationship appears to be relatively favorable.

The occupational tables included in this report are not all-inclusive and do not cover all the issues related to the selection of appropriate training programs. They are, however, designed to introduce the reader to the data and concepts included in the supply/demand reports. It is recommended that planners consult the full report for further data and other information. Revised supply/demand reports with forecasts through 1990 will be available in the near future.

TABLE 18

OCCUPATIONS WITH FAVORABLE OUTLOOK
MICHIGAN

OCCUPATION	MAJOR INDUSTRY CONCENTRATION	SIC CODE
DENTAL ASSISTANT	DENTIST'S OFFICES	80
REGISTERED NURSE	HOSPITALS	80
LPN	HOSPITALS	80
NURSE'S AIDE	HOSPITALS	80
TEACHER'S AIDE	SCHOOLS	80
CHILD CARE WORKER	CHILD/DAY CARE SERVICES	82
COOK	EATING AND DRINKING PLACES	58
FOOD COUNTER WORKER	EATING AND DRINKING PLACES	58
BOOKKEEPER	SERVICES	73,80-82
BILLING CLERK	SERVICES	73,80-82
STATISTICAL CLERK	SERVICES	73,80-82
PAYROLL CLERK	SERVICES	73,80-82
SHIPPING CLERK	SERVICES	73,80-82
BANK TELLER	BANKING	60
SECRETARY	BANKING AND SERVICES	60,73,80-82
STENOGRAPHER	BANKING AND SERVICES	60,73,80-82
TYPIST	BANKING AND SERVICES	60,73,80-82

APPENDIX A
GLOSSARY OF TERMS

GLOSSARY OF TERMS

LABOR MARKET AREAS consist of a central community and surrounding territory in which there is a concentration of economic activity or labor demand and in which workers can generally change jobs without changing their residence. Major labor market areas (SMSA's) have a central city (or adjoining cities) with a population of 50,000 or more. Small labor market areas do not have a central city of 50,000 or more and are not part of a major area.

STANDARD METROPOLITAN STATISTICAL AREAS (SMSA's) are established by the Bureau of Management and Budget so that local economic and social statistics collected by many government and private organizations may be presented on a common geographic basis. Two basic considerations are involved in the establishment of an SMSA. First, each SMSA must include at least one city with 50,000 or more inhabitants, or two cities having contiguous boundaries and constituting, for general economic and social purposes, a single community with a combined population of at least 50,000. The smaller city must have a population of at least 15,000. In addition, at least 75 percent of the labor force must be nonagricultural, thus defining the metropolitan character of the area.

CURRENT POPULATION SURVEY is conducted monthly in approximately 2,000 Michigan households by the U.S. Bureau of the Census to derive civilian labor force, total employment and unemployment estimates for the state. These estimates are prepared directly by BLS and released at the same time as the national figures each month. Labor force estimates for subareas of Michigan are compiled by the Bureau of Research and Statistics of MESC based on standard BLS procedures. These independently derived figures for labor market areas are then adjusted for additivity to the Statewide totals.

CIVILIAN LABOR FORCE (BY PLACE OF RESIDENCE) is the summation of the number of area residents who are estimated to be employed and the number of area residents estimated to be unemployed.

EMPLOYMENT, TOTAL includes an unduplicated estimate of area residents who earned wages during the week including the 12th of each month. This estimate includes agricultural employees, self-employed and unpaid family workers, domestics and strikers, as well as residents who were employed in wage and salary jobs within the labor market area or in another labor market area.

UNEMPLOYMENT, TOTAL is an unduplicated estimate of area residents who did not earn any wages during the survey week including the 12th of the month, and who were able, available, and actively seeking work during the thirty-day period preceding the survey week.

UNEMPLOYMENT RATE is the total number of unemployed in the labor market area divided by the civilian labor force in the area.

WAGE AND SALARY EMPLOYMENT (BY PLACE OF WORK) is an estimate of the number of individual jobs in the area based on a survey of employers during the survey week. These estimates are available by industry and

include nonresidents who commute into the labor market area for work, as well as individuals who have more than one job in the same labor market area.

WORKERS INVOLVED IN LABOR DISPUTES is an estimate of the number of jobs that are affected by a labor-management dispute during the entire survey week. Workers included in this category are not considered unemployed since they have a job attachment.

BENCHMARK (CURRENT EMPLOYMENT STATISTICS) indicates the most recent time period during which the industry employment estimates, which are based on a monthly sample of local employers, were compared with and adjusted to the total count of area jobs as reported under the Michigan Employment Security Act. Also, estimates of noncovered employment are included.

BENCHMARK (CURRENT POPULATION SURVEY) indicates the most recent time period during which the labor force, employment and unemployment estimates, by place of residence, were compared with and adjusted to the national household survey conducted in Michigan by the U.S. Bureau of Labor Statistics.

HANDICAPPED The term "handicapped individual" means any individual who has a physical or mental disability which for such individual constitutes or results in a substantial handicap to employment.

OFFENDER The term "offender" means any adult or juvenile who is or has been subject to any stage of the criminal justice process and for whom services under employment and training legislation may be beneficial or who requires assistance in overcoming artificial barriers to employment resulting from a record of arrest or conviction.

ECONOMICALLY DISADVANTAGED PERSON The term "economically disadvantaged" means an individual who meets one of the following criteria:

A. Receives, or is a member of a family which receives cash welfare payments under a Federal, State, or local welfare program.

B. Has, or is a member of a family which has received a total family income for the six-month period prior to application for the program involved (exclusive of unemployment compensation, child support payments, and welfare payments) which in relation to family size, was not in excess of the higher of; 1. The poverty level determined in accordance with criteria established by the Director of the Office of Management and Budget. 2. 70 Percent of the lower living standard income level.

C. Is receiving food stamps pursuant to the Food Stamp Act of 1977.

D. Is a foster child on behalf of whom State or local government payments are made.

E. In cases permitted by regulations of the Secretary, is an adult handicapped individual whose own income meets the requirements of clause

(A) or (B), but who is a member of a family whose income does not meet such requirements.

LOW-INCOME LEVEL The term "low income level" means $7,000 with respect to income in 1969, and for any later year means that amount which bears the same relationship to $7,000 as the Consumer Price Index for that year bears to the Consumer Price Index for 1969, rounded to the nearest $1,000.

POVERTY LEVEL INCOME is the maximum annual income which can be received by a family and still be considered economically disadvantaged. The maximum income level varies according to size of family. The poverty guidelines continue to be updated periodically to reflect consumer price changes as measured by the Consumer Price Index. The following OMB poverty guidelines were issued February 17, 1983 and are applicable to both nonfarm and farm families.

Family size	Maximum Annual income
1	$4,860
2	6,540
3	8,220
4	9,900
5	11,580
6	13,260

For families in excess of six members, add $1,680 for each additional member.

LOWER LIVING STANDARD INCOME LEVELS (LLSIL) FOR JTPA AND TARGETED JOBS TAX CREDIT (TUTC) PROGRAM. The term "lower living standard income level" means that income level (adjusted for regional, metropolitan, urban, and rural differences and family size) determined annually by the Secretary based on the most recent "lower living family budget" issued by the Secretary. LLSIL has not been revised for FY 1984 because the BLS no longer publishes the Lower Family Budget data which are used to determine the LLSIL. Options related to future revisions to the LLSIL are being explored. Information will be provided at a later date. Programs operating for the balance of FY 1984 will continue to use the existing LLSIL figures:

A. Seventy Percent Lower Living Standard Income Levels

Family Size	Metropolitan Area	Non-Metro Area
1	$ 3,840	$ 3,740
2	6,300	6,130
3	8,650	8,420
4	10,670	10.400
5	12,600	12,270
6	14,730	14,350

For families larger than six persons, an amount equal to the difference between six and five person family income levels (Metropolitan Area, $2,130, Non-Metropolitan Area $2,080) should be added to the six person eligibility income for each additional person in the family.

B. Eighty-Five Percent Lower Living Standard Income Levels

Family Size	Metropolitan Area	Non-Metro Area
1	$ 4,670	$ 4,540
2	7,650	7,450
3	10,500	10,230
4	12,960	12,620
5	15,300	14,900
6	17,890	17,420

For families larger than six persons, an amount equal to the difference between the six and five person family income levels (Metropolitan Area, $2,590, Non-Metropolitan Area, $2,520) should be added to the six person eligibility income for each additional person in the family.

C. One-Hundred Percent Lower Living Standard Income Levels

Family Size	Metropolitan Area	Non-Metro Area
1	$ 5,490	$ 5,350
2	9,000	8,670
3	12,350	12,030
4	15,250	14,850
5	17,990	17,530
6	21,040	20,500

For families larger than six persons, an amount equal to the difference between the six and five person family income levels (Metropolitan Area, $3,050, Non-Metropolitan Area, $2,970) should be added to the six person eligibility income for each additional person in the family.

Note: Metropolitan area standards are to be applied to applicants living within a Standard Metropolitan Statistical Area of 50,000 or more

population. Non-Metropolitan standards are to be applied to applicants outside an SMSA.

APPENDIX B
UNEMPLOYMENT INSURANCE CLAIMANTS

UNEMPLOYMENT INSURANCE CLAIMANTS BY SERVICE DELIVERY AREA
OCTOBER 1983*

AREA	TOTAL	REGULAR UNEMPLOYMENT INSURANCE	FEDERAL SUPPLEMENTAL COMPENSATION
Barry-Branch-Calhoun	3200	2472	728
Berrien-Cass-Calhoun	3710	2921	789
Lansing Tri-County	3620	2744	876
Thumb Area	1902	1391	511
CAPC	2007	1571	436
Region II	3877	2873	1004
Kalamazoo-St. Joseph	2683	2080	603
GRAETC	5507	4360	1147
Livingston-Washtenaw	3607	2671	936
Macomb-St. Clair	12287	8919	3368
Saginaw-Midland-Bay	4750	3363	1387
Monroe County	1801	1459	342
Oakland County	12075	8299	3776
Muskegon-Oceana	2529	1891	638
Allegan-Ottawa	2147	1658	489
Genesee-Shiawassee	6703	5211	1492
Wayne County	30230	21195	9035
City of Detroit	16043	11025	5018
Region 7B	1563	1140	423
West Central Michigan	1563	1146	417
Northeast Michigan	1857	1302	555
Northwest Michigan	3001	2280	721
Eastern Upper Peninsula	841	580	261
Central Upper Peninsula	2164	1621	543
Western Upper Peninsula	1290	902	388
State of Michigan	114914	84049	30865

*Source: Michigan Employment Security Commission
Bureau of Reasearch and Statistics

APPENDIX C

OCCUPATIONAL PROJECTIONS TO 1990

AND

ESARS APPLICANT CHARACTERISTICS

STATE OF MICHIGAN
PRELIMINARY
OCCUPATIONAL EMPLOYMENT PROJECTIONS
1980 - 1990
(FOR OCCUPATIONS OF 50 EMPLOYMENT OR GREATER)

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
TOTAL, ALL OCCUPATIONS	3774250	4181700	10.8	163040	40740	122290
PROFESS, TECHN, & KINDRED WORKERS	642500	723500	12.6	26430	8100	18330
ENGINEERS	51750	61250	18.4	2100	950	1150
AERO-ASTRONAUTIC ENGINEERS	350	450	27.6	20	10	10
CHEMICAL ENGINEERS	1650	1650	2.9	30	0	20
CIVIL ENGINEERS	4350	5350	22.5	240	100	140
ELECTRICAL ENGINEERS	6400	9050	41.0	390	260	130
INDUSTRIAL ENGINEERS	5400	6550	21.3	220	110	110
MECHANICAL ENGINEERS	11300	14350	26.9	540	300	240
METALLURGICAL ENGINEERS	800	1000	30.2	40	20	20
PETROLEUM ENGINEERS	150	150	20.1	10	0	0
OTHER ENGINEERS	21350	22650	6.2	620	130	490
TRAFFIC ENGINEERS	150	150	5.5	0	0	0
ALL OTHER ENGINEERS	21150	22450	6.2	610	130	480
LIFE & PHYSICAL SCIENTISTS	6400	6950	9.0	180	60	120
AGRICULTURAL SCIENTISTS	400	400	2.1	10	0	10
LIFE SCIENTISTS	1300	1400	7.2	30	10	20
BIOLOGICAL SCIENTISTS	1000	1100	8.3	30	10	20
MEDICAL SCIENTISTS	250	300	3.0	0	0	0
CHEMISTS	3200	3500	13.8	100	40	60
GEOLOGISTS	350	350	1.8	0	0	0
PHYSICISTS	250	250	-2.9	0	0	0
LIFE, PHYSICAL SCIENTISTS, NEC	950	1000	4.3	30	0	30
MATHEMATICAL SPECIALISTS	2100	2350	11.7	70	20	50
ACTUARIES	200	250	31.1	10	10	0
MATHEMATICAL SCIENTISTS	250	250	5.5	0	0	0
MATHEMATICIANS	100	150	9.8	0	0	0
ALL OTHER MATH SCIENTISTS	100	100	0.9	0	0	0
STATISTICIANS	1650	1850	10.1	60	20	40
ENGINEERING, SCIENCE TECHNS	49200	57750	17.3	1510	850	660
DRAFTERS	16550	18550	12.0	440	200	240
ELECTRICAL, ELECTRONIC TECHNS	9100	11100	21.6	300	200	100
ELECTRICAL & ELECTRONIC TECHN	8600	10550	22.7	290	190	100
BROADCAST TECHNICIANS	500	500	3.4	10	0	10
INDUSTRIAL ENGINEERING TECHNS	850	950	16.7	30	10	10
MECHANICAL ENGINEERING TECHNS	4750	5600	17.5	160	80	70
SURVEYORS	1100	1200	7.1	20	10	10
ENGINEERING, SCIENCE TECHNS, NEC	16800	20350	20.9	560	350	210
TRAFFIC TECHNICIANS	150	150	5.7	10	0	10
CIVIL ENGINEERING TECHNICIANS	1300	1600	21.2	50	30	20
ALL OTHER ENG TECH	9700	12500	29.2	460	280	180
ALL OTHER SCI TECH	5550	5950	7.0	40	40	0

STATE OF MICHIGAN
PRELIMINARY
OCCUPATIONAL EMPLOYMENT PROJECTIONS
1980 - 1990
(FOR OCCUPATIONS OF 50 EMPLOYMENT OR GREATER)

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
MEDICAL WORKERS,EX TECHNS	84000	107250	27.7	5310	2320	2990
CHIROPRACTORS	850	1100	27.2	80	20	50
DENTISTS	5300	7000	31.7	270	170	100
DIETITIANS	1500	1950	30.3	110	50	70
NURSES, PROFESSIONAL	46750	60800	30.0	3310	1400	1910
OPTOMETRISTS	900	1150	26.9	80	20	60
PHARMACISTS	6100	6850	12.5	410	80	330
PHYSICIANS,MED & OSTEOPATH	15350	19150	24.9	610	380	230
PODIATRISTS	350	500	33.2	30	10	20
THERAPISTS	6050	7700	27.2	370	160	210
OCCUPATIONAL THERAPISTS	900	1200	33.8	60	30	30
MANUAL ARTS,MUSIC,REC THERAPI	600	700	17.8	30	10	20
SPEECH & HEARING CLINICIANS,E	1600	2150	32.4	110	50	60
PHYSICAL THERAPISTS	900	1200	34.7	60	30	30
INHALATION THERAPISTS	900	1250	39.1	70	40	30
ALL OTHER THERAPISTS	1150	1200	4.6	40	10	40
VETERINARIANS	800	1050	31.3	40	30	20
HEALTH TECHNOLS & TECHNS	59000	75900	28.6	3850	1690	2160
CLINICAL LAB TECHNOLS,TECHNS	8900	11300	27.1	510	240	270
MEDICAL LAB TECHNOLOGISTS	4850	6050	24.8	260	120	140
CYTOTECHNOLOGISTS	200	250	25.3	10	0	10
HISTOLOGIC TECHNOLOGISTS	50	100	40.7	0	0	0
MEDICAL LAB ASSISTANTS	3700	4800	29.6	220	110	110
DENTAL HYGIENISTS & ASSISTANTS	10000	14900	48.9	940	490	450
DENTAL ASSISTANTS	6800	10150	48.7	640	330	310
DENTAL HYGIENISTS	3200	4750	49.3	300	160	150
HEALTH RECORD TECHNOLS,TECHNS	1100	1450	32.9	80	40	50
RADIOLOGIC TECHNOLS,TECHNS	4300	5600	29.6	270	130	140
X-RAY TECHNICIANS	3750	4900	29.9	240	110	130
RADIOLOGIC TECHS & NUC MED TE	550	700	27.7	30	20	20
OTHER HEALTH TECHNOLS,TECHNS	34750	42700	23.0	2050	800	1250
SURGICAL TECHNICIANS	1450	1900	31.8	90	50	40
PROSTHETISTS,ORTHOTISTS	100	150	44.0	10	0	0
EKG TECHNICIANS	650	800	24.4	30	20	20
EEG TECHNICIANS	350	450	21.1	20	10	10
PHARMACY HELPERS	1250	1450	15.9	70	20	50
LICENSED PRACTICAL NURSES	25050	31300	25.0	1580	630	960
DIETETIC TECHNICIANS	300	400	39.3	20	10	10
PHYSICAL THERAPY TECHNICIANS	550	800	39.0	50	20	20
ALL OTHER MED & DENT TECH	5050	5500	8.9	180	50	140

STATE OF MICHIGAN
PRELIMINARY
OCCUPATIONAL EMPLOYMENT PROJECTIONS
1980 - 1990
(FOR OCCUPATIONS OF 50 EMPLOYMENT OR GREATER)

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
TECHNICIANS,EX HEALTH OR S&E	7900	8350	5.8	130	50	80
AIRPLANE PILOTS	1200	1300	7.3	30	10	20
AIR TRAFFIC CONTROLLERS	500	500	-1.0	0	0	0
EMBALMERS	400	400	3.3	20	0	20
FLIGHT ENGINEERS	100	100	6.5	0	0	0
RADIO OPERATORS	200	200	5.3	10	0	10
TOOL PROGRAMERS,NUMERICAL CONT	350	350	2.2	0	0	0
OTHER TECHNS,EX HEALTH OR S&E	5100	5450	6.6	70	30	30
MUSEUM TECHNICIANS,RESTORERS	100	100	3.0	0	0	0
ALL OTHER TECHNICIANS	3550	3900	8.8	30	30	0
TECHNICAL ASSISTANTS,LIBRARY	1450	1450	1.7	30	0	30
COMPUTER SPECIALISTS	14300	23600	64.8	1100	930	170
COMPUTER PROGRAMERS	7200	10300	49.7	440	360	90
COMPUTER SYSTEMS ANALYSTS	7100	12800	80.2	650	570	90
SOCIAL SCIENTISTS	6450	7300	13.2	240	90	160
ECONOMISTS	1100	1300	19.0	40	20	20
FINANCIAL ANALYSTS	200	250	28.6	10	10	0
ECONOMISTS	750	900	17.2	30	10	10
MEDIA ANALYSTS	100	100	13.9	0	0	0
PSYCHOLOGISTS	2950	3400	14.3	100	40	50
SOCIOLOGISTS	250	250	7.3	10	0	0
URBAN & REGIONAL PLANNERS	1150	1200	4.1	20	0	20
OTHER SOCIAL SCIENTISTS	1050	1200	15.5	80	20	60
TEACHERS	168700	156900	-7.0	3670	-1170	4850
ADULT EDUCATION TEACHERS	6550	7200	9.5	290	60	230
COLLEGE & UNIVERSITY TEACHERS	36850	32500	-11.8	370	-420	810
TEACHERS,VOCATIONAL ED OR TRA	3300	3600	8.9	110	30	80
TEACHERS,COLLEGE	25850	22600	-12.5	240	-310	570
GRADUATE ASSISTANTS	7400	6050	-18.7	20	-130	160
EXTENSION SERVICE SPECIALISTS	250	250	-4.4	0	0	10
ELEMENTARY SCHOOL TEACHERS	60100	60100	0.0	2220	0	2220
PRESCHOOL,KINDERGTN TEACHERS	5000	5600	12.2	250	60	190
SECONDARY SCHOOL TEACHERS	56250	47650	-15.2	380	-850	1240
TEACHERS,NEC	3950	3850	-3.3	160	0	180
DANCE INSTRUCTORS	450	450	-1.5	20	0	20
ALL OTHER TEACHERS	3500	3400	-3.5	140	0	160
WRITERS,ARTISTS,& ENTERTAINERS	37350	41000	9.7	1330	360	970
ACTORS	100	150	47.4	10	10	0
ATHLETES & KINDRED WORKERS	1800	2050	13.9	70	20	50
ATHLETES	450	450	2.7	10	0	10
SPORTS INSTRUCTORS	1300	1500	16.7	50	20	30

STATE OF MICHIGAN
PRELIMINARY
OCCUPATIONAL EMPLOYMENT PROJECTIONS
1980 - 1990
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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
DESIGNERS	9050	10100	11.7	260	110	150
DESIGNERS	9000	10050	11.8	260	110	150
EDITORS & REPORTERS	4150	4650	11.9	190	50	140
WRITERS &/OR EDITORS	2550	2900	13.1	120	30	90
FILM EDITORS	100	100	29.3	10	0	0
REPORTERS & CORRESPONDENTS	1450	1600	8.7	60	10	50
MUSICIANS	9950	10500	5.8	360	60	310
MUSICIANS,INSTRUMENTAL	9700	10200	5.4	350	50	300
SINGERS	200	250	39.8	10	10	10
PAINTERS	5300	5650	7.1	180	40	140
COMMERCIAL ARTISTS	4100	4450	9.3	150	40	110
PAINTERS,ARTISTIC	1200	1200	-0.3	30	0	30
PHOTOGRAPHERS	3050	3400	11.9	120	40	80
PHOTOGRAPHERS	2950	3300	12.0	110	40	80
PUBLIC RELATIONS SPECIALISTS	2500	2700	9.0	100	20	80
RADIO,TV ANNOUNCERS	1550	1800	15.9	40	20	20
ANNOUNCERS	1250	1400	12.9	30	20	20
BROADCAST NEWS ANALYSTS	300	400	28.4	10	10	0
OTHER PROFESSIONAL & TECHN WKRS	155400	174950	12.6	6930	1960	4980
ACCOUNTANTS	30250	36450	20.5	1580	620	960
ACCOUNTANTS & AUDITORS	27900	33850	21.2	1480	590	890
TAX EXAMINERS,COLLECTRS,REV A	1500	1500	0.9	40	0	40
TAX PREPARERS	850	1100	30.5	50	30	30
ARCHITECTS	2350	2350	20.1	130	50	80
ARCHIVISTS & CURATORS	150	100	-8.7	0	0	10
MUSEUM CURATORS	100	100	-12.0	0	0	10
BUYERS & PURCHASING AGENTS	13700	15000	9.5	590	130	460
PURCHASING AGENTS &/OR BUYERS	6250	6750	7.7	210	50	170
MEDIA BUYERS	350	450	20.6	20	10	10
BUYERS,RETAIL &/OR WHOLSL TRA	6900	7650	10.9	350	80	280
RIGHT-OF-WAY AGENTS	100	100	-0.9	0	0	0
CLERGY	2650	2650	0.0	120	0	120
FORESTERS	600	600	0.6	10	0	10
JUDGES	750	750	4.6	50	0	50
JUDGES	600	650	4.6	40	0	40
MAGISTRATES	100	150	4.8	10	0	10
LAWYERS & KINDRED WORKERS	13600	20200	48.5	1500	660	840
LAW CLERKS	950	1400	50.9	110	50	60
LAWYERS	12100	17350	43.5	1260	530	730
PARALEGAL PERSONNEL	600	1450	149.5	140	90	50

STATE OF MICHIGAN
PRELIMINARY
OCCUPATIONAL EMPLOYMENT PROJECTIONS
1980 - 1990
(FOR OCCUPATIONS OF 50 EMPLOYMENT OR GREATER)

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
LIBRARIANS	4900	4800	-2.1	180	0	190
LIBRARIANS	4600	4500	-1.9	170	0	180
AUDIO VISUAL SPECIALISTS	300	250	-4.6	10	0	10
PERSONNEL,LABOR REL SPECIALISTS	10650	11300	5.8	300	60	240
PERSONNEL,LABOR REL SPECIALIS	9150	9450	3.5	240	30	200
EMPLOYMENT INTERVIEWERS	1550	1800	19.1	70	30	40
RECREATION WORKERS	7200	8350	6.6	250	50	200
GROUP RECREATION WORKERS	7700	8200	6.3	250	50	200
CAMP DIRECTORS	100	150	23.5	10	0	0
SOCIAL WORKERS	12700	13700	8.0	510	100	410
CASEWORKERS	9850	10550	7.3	380	70	310
WELFARE INVESTIGATORS	450	500	7.4	20	0	10
COMMUNITY ORGANIZATION WORKER	2400	2700	10.9	100	30	80
VOCATIONAL,EDUC COUNSELORS	6900	6750	-2.7	160	-10	180
ALL OTHER PROFESSIONAL WORKERS	48350	51450	6.4	1540	310	1230
TECHNICAL DIRECTORS	100	100	28.9	0	0	0
HOSPITAL INS REPRESENTATIVES	500	550	12.6	20	10	20
SAFETY INSPECTORS	300	350	18.2	20	10	10
COST ESTIMATORS	2550	2950	17.1	130	40	80
CREDIT ANALYSTS,CHIEF	300	300	14.5	10	0	10
CREDIT ANALYSTS	500	600	14.1	20	10	20
TITLE EXAMINERS &/OR ABSTRACT	250	250	7.7	10	0	10
ESTIMATORS,PRINTING SERVICES	150	150	1.5	0	0	0
UNDERWRITERS	2350	2700	15.5	130	40	100
INVESTIGATORS,INSURANCE	200	250	29.7	10	10	0
APPRAISERS,REAL ESTATE	1300	1400	10.7	80	10	70
ASSESSORS	750	800	4.9	50	0	50
CLAIMS TAKERS,UNEMP BENEFITS	1100	1100	-0.7	30	0	30
BROKER'S FL REPS,SEC TRADRS,E	50	100	41.7	10	0	0
SPECIAL AGENTS,INSURANCE	1750	1850	5.9	70	10	60
TRAVEL AGTS,TR ACCOM APPRAISE	1700	1950	15.3	90	30	70
CLAIM EXAMINERS,PRPTY/CSLTY I	700	950	31.5	40	20	20
ALL OTHER PROFESSIONAL	33700	34900	3.5	800	120	680
MANAGERS,OFFICIALS,PROPRIETORS	307950	332100	7.8	13520	2420	11100
SALES MANAGERS	12250	13800	12.9	470	160	310
SALES MANAGERS,RETAIL TRADE	12250	13800	12.9	470	160	310
ADMINISTRATORS,PUB INSPECTORS	5450	5500	0.8	230	0	220
CONSTRUCTION INSPECTORS,PUB AD	1600	1700	7.9	110	10	90
INSPECTORS,EX CONST,PUB ADM	3000	3050	0.8	100	0	90
POSTMASTERS & MAIL SUPERINTS	850	750	-11.9	30	0	40

STATE OF MICHIGAN
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OCCUPATIONAL EMPLOYMENT PROJECTIONS
1980 - 1990
(FOR OCCUPATIONS OF 50 EMPLOYMENT OR GREATER)

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
OTHER MANAGERS,OFFICIALS,PROPS	290250	312800	7.8	12830	2250	10570
RAILROAD CONDUCTORS	1350	1100	-17.1	10	-10	30
RESTAURANT,CAFE,& BAR MGRS	19300	23800	23.4	1150	450	700
OTHER MGRS,ADMINISTRATORS	269650	287900	6.8	11660	1820	9840
MANAGERS,STORE	33200	35550	7.1	1450	240	1210
MANAGERS,AUTO SERVICE DEPT	1900	2100	11.8	90	20	70
MANAGERS,AUTO PARTS DEPT	1450	1650	12.6	70	20	50
WHOLESALERS	6150	6800	10.0	290	60	230
ALL OTHER MANAGERS	226950	241800	6.5	9760	1490	8270
SALES WORKERS	254450	295650	11.8	13900	3120	10780
AUCTIONEERS	150	200	22.2	10	0	10
INSURANCE AGENTS,BROKERS,ETC	19200	22400	16.8	970	320	650
PLACERS	100	100	20.0	10	0	0
SALES AGENTS,SALES REPS,INSUR	19100	22300	16.8	960	320	640
REAL ESTATE AGENTS,BROKERS	21500	23450	9.0	1500	190	1310
BUSINESS BROKERS	500	500	4.0	30	0	30
REAL ESTATE BROKERS	2450	2450	-1.0	140	0	140
SALES AGENTS,SALES REPS,REAL	18550	20500	10.5	1330	190	1130
STOCK & BOND SALES AGENTS	1800	2600	44.3	190	80	110
SALES AGENTS,SALES REPS,SECUR	1800	2550	44.3	190	80	110
OTHER SALES WORKERS	221750	247000	11.4	11240	2520	8720
SALES CLERKS	119200	129800	8.9	5690	1060	4630
VENDORS	200	250	31.4	10	10	10
CONTRIBUTION SOLICITORS	100	150	30.3	10	0	0
CRATING & MOVING ESTIMATORS	250	300	16.3	10	0	10
ALL OTHER SALES WORKERS	102000	116500	14.2	5510	1450	4070
CLERICAL WORKERS	646550	718700	11.2	29520	7220	22300
STENOS,TYPISTS,SECRETARIES	139900	161400	15.4	7950	2150	5800
SECRETARIES	94300	114150	21.1	6150	1990	4170
STENOGRAPHERS	7900	6800	-13.9	160	-100	270
TYPISTS	37700	40400	7.3	1640	270	1360
OFFICE MACHINE OPERATORS	29750	34100	14.6	1290	430	860
BOOKKEEPING,BILLING OPERATORS	7250	8450	16.3	380	120	260
BOOKKEEPING/BILLING MACH OPS	4950	5750	15.8	260	80	180
PROOF MACHINE OPERATORS	2050	2400	17.6	110	40	70
TRANSIT CLERKS	250	300	15.9	10	0	10
COMPUTER,PERIPHERAL EQUIP OPS	6600	10500	59.2	510	390	120
COMPUTER OPERATORS	5450	8900	63.4	450	350	100
PERIPHERAL EDP EQPT OPERATORS	1150	1600	39.1	60	40	20
DUPLICATING MACHINE OPERATORS	1050	1150	9.3	40	10	30
KEYPUNCH OPERATORS	11650	10450	-10.6	220	-110	340
TABULATING MACHINE OPERATORS	150	150	-0.7	0	0	0
ALL OTHER OFFICE MACHINE OPS	3050	3450	13.1	140	40	100

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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
OTHER CLERICAL WORKERS	476900	523250	9.7	20280	4630	15640
BANK TELLERS	21350	24700	15.6	1040	330	710
NEW ACCOUNTS TELLERS	1750	2000	14.4	80	30	60
TELLERS	19650	22700	15.7	960	310	650
BOOKKEEPERS	47950	52400	9.3	2400	440	1960
ACCOUNTING CLERKS	22100	23200	5.1	990	110	880
BOOKKEEPERS,HAND	25900	29200	12.8	1410	330	1070
CASHIERS	52400	62050	18.4	2890	970	1920
ELIGIBILITY WORKERS,WELFARE	3250	3450	6.2	60	20	40
CLERICAL SUPERVISORS	15400	18100	10.2	600	170	430
COLLECTORS,BILL & ACCOUNT	3000	3300	10.0	120	30	90
COUNTER CLERKS,EX FOOD	10600	11550	9.1	510	100	410
CAR RENTAL CLERKS	300	400	26.2	20	10	10
DESK CLERKS	1650	1850	10.9	90	20	70
ORDER CLERKS	7000	7750	10.3	350	70	280
CIRCULATION CLERKS	250	200	-7.4	10	0	10
CLASSIFIED AD CLERKS,NEWSPAPE	100	100	-5.9	0	0	0
TELEPHONE AD TAKERS,NEWSPAPER	350	300	-6.9	10	0	10
DESK CLERKS,BOWLING FLOOR	950	950	1.8	30	0	30
DISPATCHERS,STARTERS,VEHICLE	3450	3650	4.9	120	20	110
DISPATCHERS,AIRPLANE	100	100	6.3	0	0	0
DISPATCHERS,POLICE,FIRE,AMBUL	1150	1250	4.8	40	10	40
DISPATCHERS,VEHICLE,SERV OR W	2200	2300	4.9	80	10	70
SURVEY WORKERS	2000	2300	12.8	100	30	80
ESTIMATORS,INVESTIGATORS,NEC	4900	5800	19.2	260	90	160
CREDIT AUTHORIZERS	400	400	3.9	10	0	10
ADJUSTMENT CLERKS	1000	1100	8.4	40	10	30
CHECKING CLERKS	400	450	16.8	20	10	10
CLAIMS CLERKS	2150	2750	26.3	130	60	70
CREDIT REPORTERS	750	950	26.8	50	20	30
CUSTOMER SERV REPS,PRINT & PU	100	100	1.0	0	0	0
PRODUCTION CLERKS	6800	7550	10.8	230	70	160
FILE CLERKS	10600	11600	9.5	490	100	390
FILE CLERKS	7500	8300	11.0	360	80	280
PERSONNEL CLERKS	2850	3050	6.7	120	20	100
ADMISSIONS EVALUATORS	250	250	-4.4	10	0	10
CLAIM ADJUSTERS	3450	4500	30.2	210	100	100
CLAIM EXAMINERS,INSURANCE	1350	1700	23.8	90	30	60
CLAIM ADJUSTERS	2100	2800	34.4	120	70	50
LIBRARY ASSISTANTS	2800	2750	-1.0	90	0	100
MAIL CARRIERS,POSTAL SERVICE	18800	17450	-7.1	250	-120	380

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MAIL HANDLERS,EX POSTAL SERVICE	1850	2100	13.4	90	20	70
MAIL CLERKS	1800	2050	13.8	90	30	70
MESSENGERS & OFFICE HELPERS	1000	1100	10.4	40	10	30
MESSENGERS,BANK	100	100	17.4	0	0	0
MESSENGERS	900	1000	9.7	40	10	30
METER READERS,UTILITIES	900	900	-0.4	10	0	10
PAYROLL,TIME KEEPING CLERKS	5950	6500	9.5	250	60	200
POSTAL CLERKS	3300	2850	-14.5	40	-40	90
PROOFREADERS	400	400	-5.[illegible]	20	0	20
PROOFREADERS,COMPOSED COPY	350	300	-6.7	20	0	20
RECEPTIONISTS	23650	27850	17.7	1400	420	980
RECEPTIONISTS	16000	19250	20.3	1000	330	670
SWITCHBD OPS/RECEPTIONISTS	7700	8600	12.1	400	90	310
SHIPPING,RECEIVING CLERKS	24600	27850	13.3	980	330	650
SHIPPING & RECEIVING CLERKS	14650	16650	13.7	590	200	390
SHIPPING PACKERS	9850	11100	12.6	380	120	260
MANIFEST CLERKS	100	100	16.5	0	0	0
STATISTICAL CLERKS	7800	8250	5.5	310	40	260
GAS DISPATCHERS	100	100	0.0	0	0	0
BROKERAGE CLERKS	100	100	41.2	10	0	0
MARGIN CLERKS	50	100	25.8	0	0	0
RATERS	1650	1850	10.2	80	20	60
STATISTICAL CLERKS	3950	4050	2.7	140	10	130
WORKSHEET CLERKS	250	250	-1.7	10	0	10
COURT CLERKS	1400	1500	4.9	50	10	50
INSURANCE CHECKERS	250	300	11.3	10	0	10
STOCK CLERKS,STORE KEEPERS	30200	33450	10.7	1120	320	800
PROCUREMENT CLERKS	1400	1550	8.1	50	10	40
STOCK CLERKS,STOCKRM,WAREHS,E	28750	31900	11.0	1070	310	760
TEACHERS AIDES,EX MONITORS	20400	21250	4.3	570	90	480
TELEGRAPH OPERATORS	100	100	0.0	0	0	0
TELEPHONE OPERATORS	10850	10550	-2.7	370	-20	400
SWITCHBOARD OPERATORS	5850	5800	-1.1	210	0	220
CENTRAL OFFICE OPERATORS	4700	4500	-4.6	150	-10	170
PRIVATE BRANCH SERVICE ADVISO	200	150	-2.8	10	0	10
SERVICE OBSERVERS	100	100	-3.5	0	0	0
TICKET,STATION,EXPRESS AGENTS	1650	1600	-3.2	30	0	40
STATION AGENTS	100	50	-41.5	0	0	0
TRAFFIC AGENTS	250	250	11.4	10	0	10
RESERVATION AGENTS	300	300	-3.0	10	0	10
TRANSPORTATION AGENTS	450	450	0.0	10	0	10
TICKET AGENTS	550	550	-5.4	10	0	10
WEIGHERS	850	950	10.4	40	10	30

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ALL OTHER CLERICAL WORKERS	135700	146550	8.0	5630	1080	4550
LOAN CLOSERS	1050	1150	10.7	50	10	40
COIN MACH OPS/CURRENCY SORTER	100	200	49.2	10	10	10
CALL-OUT OPERATORS	100	100	-2.6	0	0	0
MEDIA CLERKS/ESTIMATORS/BILLE	100	150	15.7	10	0	0
GENERAL CLERKS,OFFICE	80600	87500	8.5	3390	690	2710
IN-FILE OPERATORS	100	100	1.1	0	0	0
POLICY CHANGE CLERKS	750	850	19.2	40	10	30
REAL ESTATE CLERKS	400	450	9.5	20	0	10
SAFE DEPOSIT CLERKS	400	450	17.4	20	10	10
STATEMENT CLERKS	1050	1250	18.8	60	20	40
SERVICE CLERKS	800	800	0.9	30	0	30
TITLE SEARCHERS	150	150	10.3	10	0	10
TRAFFIC CLERKS	200	250	28.8	10	10	10
MARKING CLERKS TRADE	1350	1400	3.5	50	0	50
PROTECTIVE SIGNAL OPERATORS	300	350	17.0	10	0	10
RATE CLERKS,FREIGHT	250	300	9.5	10	0	10
TOWN CLERKS	200	200	4.8	10	0	10
CREDIT CLERKS,BANK &/OR INS	1950	2100	9.2	80	20	70
MORTGAGE CLOSING CLERKS	750	800	11.3	30	10	30
SORTING CLERKS,BANK	200	200	16.0	10	0	10
INSURANCE CLERKS	200	200	10.7	10	0	10
INSURANCE CLERKS,MEDICAL	3150	3950	25.7	200	80	120
ALL OTHER OFFICE CLERICAL	32450	34350	5.7	1260	190	1080
ALL OTHER PLANT CLERICAL	9050	9100	1.0	300	10	290
CRAFTS & KINDRED WORKERS	442850	482500	9.0	14980	3970	11010
CONSTRUCTION CRAFTS WKRS	100700	112300	11.5	3720	1160	2560
CARPENTERS	24850	28300	13.8	1100	340	760
CARPENTERS	24800	28200	13.7	1100	340	760
PICTURE FRAMERS	50	100	23.9	0	0	0
BRICKMASONS & STONEMASONS	4300	5250	22.0	180	90	90
BRICKLAYERS	3800	4750	25.2	180	100	80
REFRACTORY MATERIALS REPAIRER	450	400	-3.3	10	0	10
LOGGING TRACTOR OPERATORS	500	500	4.8	10	0	10
CEMENT & CONCRETE FINISHERS	3100	3700	19.3	120	60	60
CEMENT MASONS	2800	3350	19.0	110	50	50
CONCRETE RUBBERS	100	100	8.7	0	0	0
TERRAZZO WORKERS	100	150	27.1	10	0	0
ELECTRICIANS	22650	26000	14.6	860	330	530
ELECTRICIANS	22450	25750	14.7	850	330	530
STREETLIGHT REPAIRERS,SERVICE	200	250	4.7	10	0	10

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				TOTAL	GROWTH	REPLCMT
EXCAVATING,GRADING MACH OPS	11000	11450	4.2	230	50	180
DREDGE OPERATORS	100	100	6.8	0	0	0
HEAVY EQUIPMENT OPERATORS	10300	10850	5.3	230	50	170
BATCH PLANT OPERATORS	200	150	-13.7	0	0	0
BALLAST CLEAN MACH OPERATORS,	300	200	-28.0	0	0	0
PAINTERS,CONSTRUCTION,MAINT	9050	9550	5.6	360	50	310
PAPERHANGERS	450	500	7.9	40	0	40
PLASTERERS	300	300	-1.3	10	0	10
PLASTERERS	300	300	-1.3	10	0	10
PLUMBERS & PIPEFITTERS	17750	19650	10.6	640	190	460
FITTERS,PIPELAYING	1400	1750	27.5	80	40	40
PLUMBERS &/OR PIPEFITTERS	16350	17850	9.1	560	150	420
ROOFERS	3400	3550	4.3	70	10	60
STRUCTURAL STEEL WORKERS	2250	2200	-1.3	50	0	50
TILE SETTERS	1100	1400	26.8	50	30	20
TILE SETTERS	400	500	26.0	20	10	10
CEILING TILE INSTALLRS,FLR LA	700	900	27.2	30	20	10
BLUE COLLAR WKR SUPVSRS	51450	56450	9.8	1710	500	1210
SUPERVISORS,NONWORKING	51450	56450	9.8	1710	500	1210
METALWKG CRAFTS WKRS,EX MECH	71100	74900	5.4	2090	380	1710
BLACKSMITHS	100	100	-15.8	0	0	0
BOILERMAKERS	950	950	2.2	30	0	30
HEAT TREATERS,ANNEALERS,ETC	2400	2600	6.8	80	20	70
FORGE & HAMMER OPERATORS	1500	1650	9.3	50	10	30
FORGING PRESS OPERATORS	750	850	10.0	20	10	20
HEADER OPERATORS	750	800	8.5	20	10	20
JOB & DIE SETTERS,METAL	11150	12100	8.9	360	100	260
DIE SETTERS	500	550	11.6	20	10	10
MACHINE TOOL SETTERS,METALWRK	8250	8900	7.8	250	60	190
PUNCH PRESS SETTERS,METAL	1800	2000	11.4	60	20	40
SHEAR &/OR SLITTER SETTERS	150	150	2.9	0	0	0
SETTERS,PLASTIC MOLDING MACHI	400	500	19.6	20	10	10
MACHINISTS	8850	9750	9.8	340	90	250
LAYOUT MARKERS,METAL	1000	1150	13.3	40	10	30
MACHINISTS	7850	8600	9.3	300	70	230
MILLWRIGHTS	9550	10300	7.9	310	80	240
MOLDERS,METAL	1650	1500	-8.8	20	0	30
MOLDERS,BENCH &/OR FLOOR	500	550	2.5	10	0	10
MOLDERS,MACHINE(METAL)	650	600	-5.0	10	0	10
SHELL MOLD/SH CORE MACH OPERA	450	300	-27.5	0	0	10

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PATTERN & MODEL MAKERS	2800	3000	6.8	90	20	70
PATTERNMAKERS,PLASTICS	50	100	32.3	0	0	0
PATTERNMAKERS,METAL	1600	1700	3.7	50	10	40
PATTERNMAKERS,WOOD	1100	1250	9.7	40	10	30
ROLLERS & FINISHERS,METAL	550	550	-4.5	10	0	10
FORGING/STRAIGHTENING ROLL OP	100	100	-4.4	0	0	0
ROLLING MILL OPS/ATTENDANTS	200	200	-3.2	0	0	0
ROLLING MILL OPERATOR HELPERS	250	200	-5.6	0	0	10
SHEET METAL WORKERS,TINSMITHS	7800	8350	6.9	220	50	160
TOOLMAKERS & DIEMAKERS	23700	24050	1.4	590	30	560
TOOL & DIE MAKERS	23400	23750	1.4	590	30	550
DIE SINKERS	300	300	0.0	10	0	10
MECHS,REPAIRERS,INSTALLERS	86850	99000	14.0	3130	1220	1970
AIR COND,HEATING,REFRIG MECHS	3900	4600	17.6	190	70	120
AIRCRAFT MECHANICS	1550	1650	8.3	30	10	20
AUTO SEAT COVER,TOP INSTALLERS	150	150	-5.8	0	0	0
AUTO BODY REPAIRERS	6200	7100	14.2	200	90	110
AUTO MECHANICS	29550	33250	12.5	970	370	600
AUTOMOTIVE MECHANICS	28850	32500	12.5	950	360	590
AUTO REPAIR SERVICE ESTIMATOR	700	800	13.6	20	10	10
DATA PROCESSING MACH MECHANICS	350	750	101.6	40	40	0
FARM EQUIPMENT MECHANICS	900	1000	10.3	40	10	30
HEAVY EQUIP MECHS,INCL DIESEL	19000	22300	17.2	830	330	500
ENGINEERING EQUIPMT MECHANICS	1800	1900	5.8	60	10	50
HYDROELECTRIC MACHINE MECHS,E	150	150	3.7	0	0	0
MINE MACHINERY MECHANICS	300	350	19.1	10	10	10
MARINE MECHANICS/REPAIRERS	200	200	0.9	10	0	10
MAINTENANCE MECHANICS	15750	18850	19.5	730	310	420
POWER TRANSFORMER REPAIRERS	200	200	-0.5	0	0	10
TREATMENT PLANT MECHANICS	550	600	4.7	20	0	10
HOUSEHOLD APPLIANCE MECHANICS	3000	3350	10.9	100	30	70
GAS & ELEC APPLIANCE REPAIRER	1600	1800	13.1	60	20	40
HOUSEHOLD APPLIANCE INSTALLER	450	550	27.0	20	10	10
WATER METER INSTALLERS	250	250	4.7	10	0	10
HOUSEHOLD APPLIANCE REPAIRERS	700	650	-1.9	10	0	20
OFF MACH SERVICERS/CASH REG SER	1350	2100	55.0	100	70	20
RADIO,TELEVISION REPAIRERS	1950	2300	18.8	80	40	50
RAILROAD CAR SHOP REPAIRERS	1300	950	-27.5	0	-30	30
SIGNAL MAINTAINERS	200	150	-28.0	0	0	0
CAR REPAIRERS	1100	800	-27.4	0	-20	20

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OTHER MECHANICS & REPAIRERS	17650	19650	11.2	620	200	420
BICYCLE REPAIRERS	750	850	11.7	30	10	20
CAMERA REPAIRERS	100	150	8.9	0	0	0
ELECTRIC MOTOR REPAIRERS	400	500	32.6	20	10	10
LAUNDRY MACHINE MECHANICS	200	200	-7.6	0	0	0
LOCKSMITHS	350	400	11.7	10	0	10
COIN MACHINE SERVICERS,REPAIR	800	1000	25.1	40	20	20
SEWING MACHINE MECHANICS	150	150	-12.8	0	0	0
PROTECTIVE SIGNAL INST/REPAIR	450	500	15.4	10	10	10
INSTRUMENT REPAIRERS	2750	2800	0.6	60	0	60
DIESEL MECHANICS	4650	5300	14.1	190	70	120
ELECTROMEDICAL EQUIPMT REPAIR	100	100	14.0	0	0	0
PINSETTER MECHANICS,AUTOMATIC	400	500	14.0	20	10	10
SIGN ERECTORS	300	350	15.6	10	0	10
ALL OTHER MECHANICS & REPAIR	6050	6700	11.0	210	70	140
PRINTING TRADE CRAFTS WKRS	12900	12150	-5.9	230	-70	310
BOOKBINDERS	3000	2700	-10.4	40	-20	70
SETTERS,BINDERY MACHINES	200	200	3.3	10	0	10
BOOKBINDERS,HAND	150	150	4.4	10	0	10
BOOKBINDERS,MACHINE	250	250	1.5	10	0	10
BINDERY WORKERS,ASSEMBLY	1250	1100	-12.4	10	-10	30
BINDERY WORKERS,STITCHING	200	200	-11.2	0	0	0
ALL OTHER BINDERY WORKERS	950	800	-15.9	0	-10	20
COMPOSITORS & TYPESETTERS	3200	2450	-23.5	30	-60	100
ELECTROTYPERS,STEREOTYPERS	100	50	-54.3	0	0	0
ENGRAVERS,EX PHOTOENGRAVERS	200	200	5.3	10	0	0
ETCHERS &/OR ENGRAVERS	200	200	5.3	10	0	0
PHOTOENGRAVERS,LITHOGRAPHERS	1450	1700	14.5	60	20	40
STRIPPERS PRINTING	600	750	20.4	30	10	20
CAMERA OPERATORS,PRINTING	650	750	20.0	30	10	20
PHOTOENGRAVERS	200	200	-18.3	0	0	10
PRESS & PLATE PRINTERS	4950	5100	2.5	100	10	90
PRESS OPERATORS,PLATE PRINTER	850	1000	15.8	30	10	20
OFFSET LITHOGRAPHIC PRESS OPS	2350	2550	7.1	60	20	40
PLATEMAKERS	450	450	-2.0	10	0	10
FLEXOGRAPHIC PRESS OPERATORS	100	100	0.0	0	0	0
GRAVURE PRESS OPERATORS	100	100	-9.8	0	0	0
LETTER PRESS OPERATORS	1000	850	-15.5	0	-10	20
TRANSP, PUB UTIL CRAFT WKRS	15800	13100	-17.1	-50	-260	210

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ELEC POWER LINE INST,REPAIRERS	6200	6400	3.8	100	20	80
CABLE SPLICERS	1950	1950	-0.4	20	0	20
LINE INSTALLERS,REPAIRERS	3950	4200	6.2	70	20	50
TROUBLE SHOOTERS,POWER LINE	300	300	0.0	0	0	0
LOCOMOTIVE ENGINEERS	1200	1050	-10.9	30	0	40
YARD ENGINEERS	700	650	-9.6	20	0	20
LOCOMOTIVE ENGINEERS	450	400	-12.3	10	0	10
LOCOMOTIVE ENGINEER HELPERS	300	100	-64.9	-10	-10	0
POWER STATION OPERATORS	450	450	0.5	20	0	20
TELEPHONE INSTALLERS,REPAIRERS	7700	5050	-34.0	-180	-250	70
INSTALLERS,REPAIRERS,SEC MAIN	1650	850	-49.2	-60	-70	10
STATION INSTALLERS	1300	650	-50.5	-50	-60	10
TELEGRAPH EQUIPMT MAINTAINERS	600	300	-51.8	-20	-20	10
FRAME WIRERS	450	250	-46.7	-10	-10	0
CENTRAL OFFICE REPAIRERS	1850	1200	-34.4	-40	-50	20
TROUBLE LOCATORS,TEST DESK	850	900	6.4	20	10	10
TELEGRAPH PLANT MAINTAINERS	100	50	-45.1	0	0	0
TELETYPE INSTALLERS	750	800	2.9	10	0	10
OTHER CRAFTS,KINDRED WORKERS	104050	114600	10.1	4100	1050	3050
BAKERS	2500	2400	-3.8	80	0	90
FOOD SHAPERS,HAND	300	300	-2.3	10	0	10
BAKERS	2150	2050	-4.2	70	0	80
CABINETMAKERS	1150	1350	14.4	80	20	60
CARPET CUTTERS,CARPET LAYERS	1300	1600	23.3	50	30	20
CRANE,DERRICK,HOIST OCCUPS	4900	5050	3.1	120	20	110
CRANE,DERRICK,& HOIST OPERATO	4850	5000	3.1	120	20	110
MERCHAN DISPLAYERS & WIND TRMRS	700	750	8.6	30	10	30
DENTAL LAB TECHNICIANS	1850	2650	43.5	140	80	60
FURNITURE FINISHERS	650	650	2.8	50	0	40
GLAZIERS	1400	1450	4.3	30	10	30
GLASS INSTALLERS	200	300	37.3	10	10	0
GLAZIERS	1200	1200	-1.2	20	0	20
INSPECTORS,LOG & LUMBER	200	250	12.9	10	0	10
OTHER INSPECTION OCCUPS	37350	41100	9.9	1550	370	1180
INSPECTORS	32650	35900	10.0	1350	330	1030
TESTERS	4700	5150	9.6	190	50	150
JEWELERS & WATCHMAKERS	1150	1250	10.2	80	10	70
JEWELERS &/OR SILVERSMITHS	650	750	16.6	50	10	40
WATCHMAKERS	500	500	1.8	30	0	30

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1980 - 1990
(FOR OCCUPATIONS OF 50 EMPLOYMENT OR GREATER)

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
MILLERS,GRAIN,FLOUR,FEED	250	300	7.8	10	0	10
MILLERS	250	300	7.8	10	0	10
MOTION PICTURE PROJECTIONISTS	650	650	-1.1	40	0	40
OPTICIANS,LENS GRINDRS,POLSHRS	1950	2750	39.9	130	80	50
LENS GRINDERS	150	200	52.7	10	10	0
OPTICIANS,DISP &/OR OPTIC MEC	1850	2550	39.0	120	70	50
SHOE REPAIRERS	300	300	-2.8	30	0	30
SHOE REPAIRERS	300	300	-3.2	30	0	30
STATIONARY ENGINEERS	6150	6050	-1.4	180	0	190
CONTROL ROOM OPERATORS,STEAM	400	350	-14.9	10	0	10
AUXILIARY EQUIPMENT OPERATORS	150	100	-14.8	0	0	0
OIL PUMPERS	150	100	-38.9	0	0	0
SEWAGE PLANT OPERATORS	1050	1000	-6.1	30	0	30
STATIONARY ENGINEERS	2700	2800	4.1	100	10	90
PUMP STAT OPERATORS,WATERWORK	100	100	5.0	0	0	0
STATION ENGINEERS,MAIN LINE	100	100	-20.0	0	0	0
WATER TREATMENT PLANT OPERATO	1250	1300	4.6	50	10	40
TAILORS	1800	2050	14.3	190	30	160
ALTERATION TAILORS	1750	2000	14.0	180	20	160
UPHOLSTERERS	2150	2400	9.8	110	20	90
FURNITURE UPHOLSTERERS	800	800	-5.5	30	0	30
CUSHION MAKERS	350	450	37.8	30	10	20
UPHOLSTERY TRIMMERS	100	100	7.7	0	0	0
UPHOLSTERERS	450	500	10.2	20	0	20
UPHOLSTERY CUTTERS	250	350	25.9	20	10	10
CRAFTS & KINDRED WORKERS,NEC	37600	41650	10.8	1190	400	790
MACHINE SETTERS,WOODWORKING	150	200	8.9	0	0	0
MACHINE SETTERS,PAPER GOODS	450	400	-4.3	10	0	10
MAINTENANCE REPAIRERS,GEN UTI	20050	22550	12.6	670	250	420
MOBILE HOME REPAIRERS	150	150	5.3	0	0	0
MUSICAL INSTRUMENTS REPAIRERS	300	300	-4.7	0	0	10
ALL OTHER SKILLED CRAFTS WRK	16400	17900	9.3	490	150	340
OPERATIVES	556900	604350	8.5	17850	4740	13110
SEMISKILLED METALWORKING OPS	147450	151400	2.7	3630	390	3240
DRILL PRESS OPERATIVES	13850	13600	-1.9	250	-20	280
DRILL PRESS/BORING MACHINE OP	13800	13550	-2.0	250	-20	280
FURNACE TNDRS,SMELTERS,POURERS	3000	3100	3.2	70	10	60
CASTERS,INGOTS & PIGS	150	150	0.0	0	0	0
STOVE TNDRS &/OR BL FUR KPRS	100	100	-5.6	0	0	0
STEEL POURER HELPERS	150	100	-6.4	0	0	0
POURERS,METAL	1250	1300	4.1	30	10	30
FURNACE OPERATORS,CUPOLA TEND	1050	1100	5.5	30	10	20
FURNACE CHARGERS	250	250	-2.9	0	0	10
GRINDING/ABRADING MACH OPS,MET	14150	15100	6.6	450	90	350

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HEATERS,METAL	900	950	6.4	30	10	20
LATHE,MILLING MACH OPERATIVES	18700	19300	3.4	520	60	460
LATHE OPERATORS,WOOD	50	100	14.5	0	0	0
LATHE MACH OPERATORS,METAL	12000	12900	7.5	390	90	300
MILLING/PLANING MACHINE OPERA	6450	6150	-4.6	120	-20	150
SHAPER &/OR ROUTER OPERATORS	150	150	10.8	0	0	0
METAL PLATERS	1600	1900	20.1	70	30	30
ELECTROPLATERS	1350	1650	21.0	60	30	30
DIP PLATERS,NONELECTROLYTIC	250	300	14.8	10	0	10
OTHER PRECISION MACH OPR	27650	28150	1.8	690	50	640
BORING MACHINE OPERATORS,WOOD	100	100	4.2	0	0	0
MACHINE TOOL OPERATORS,COMBO	17100	16750	-2.1	350	-30	390
MACHINE TOOL OPERATORS,NUM CO	2700	2850	5.1	80	10	60
WOOD MACHINISTS	800	950	18.8	40	20	20
MACHINE TOOL OPERATORS,TOOL R	6900	7450	8.1	220	60	170
PUNCH,STAMPING PRESS OPS	30850	30650	-0.5	640	-10	660
POWER PRESS TENDERS	250	250	-2.8	0	0	10
PUNCH PRESS OPERATORS,METAL	28200	27800	-1.4	560	-30	600
PUNCH PRESS OPERATORS,PLASTIC	300	400	30.3	20	10	10
POWER BRAKE,BENDING MACH OPS,	2050	2200	6.1	60	10	50
WELDERS & FLAME CUTTERS	36800	38650	5.0	900	180	720
WELDERS & FLAMECUTTERS	6250	7400	18.0	240	110	130
WELDERS & FLAMECUTTERS--A	5150	5550	8.4	150	40	100
WELDERS & FLAMECUTTERS--B	17450	17550	0.5	340	10	330
WELDERS & FLAMECUTTERS--C	7950	8150	2.6	170	20	150
SEMISKILLED TEXTILE OPS	250	350	28.9	20	10	10
CARDING,LAPPING,COMBING OPS	50	100	37.1	0	0	0
CARD TENDRS,COMBER TENDRS,ETC	50	100	39.1	0	0	0
SPINNERS,TWISTERS,& WINDERS	100	100	23.7	0	0	0
OTHER TEXTILE OPERATIVES	100	100	27.3	10	0	0
FOLDERS,HAND	100	100	24.0	0	0	0
SEMISKLD PACKNG,INSPECTNG OPS	26500	26700	0.6	740	20	720
CHECKERS,EXAMINERS,ETC,MFG	350	350	2.0	10	0	10
SELECTORS,GLASSWARE	350	350	2.0	10	0	10
GRADERS & SORTERS,MFG	150	200	4.8	10	0	10
GRADERS,FOOD &/OR SKINS	100	100	4.0	0	0	0
PACKERS,WRAPPERS,EX MEAT,PROD	26000	26150	0.6	720	20	700
PRODUCTION PACKAGERS	17650	19050	7.9	630	140	500
BAGGERS	8250	7000	-15.0	80	-110	210

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OTHER OPERATIVES,EX TRANSPORT	195800	221250	13.0	7430	2540	4880
ASBESTOS & INSULATION WORKERS	900	1050	15.7	30	10	20
ASSEMBLERS	71300	87750	23.0	3180	1640	1530
MOBILE HOME SET-UP OPERATORS	100	100	6.0	0	0	0
POWER SCREWDRIVER OPERATORS	400	500	20.4	20	10	10
WIRERS,ELECTRONIC	450	550	23.4	20	10	10
COIL FINISHERS	200	250	12.9	10	0	0
ASSEMBLERS	1000	1100	11.3	30	10	20
ASSEMBLERS--A	800	950	16.3	30	10	20
MACHINE ASSEMBLERS--A	2700	2900	6.9	90	20	70
INSTRUMENT MAKERS--A	50	100	31.4	0	0	0
ELEC MECH EQUIPMT ASSEMBLERS-	350	400	6.6	10	0	10
ELEC & ELECT ASSEMBLERS-A	1350	1450	7.6	40	10	30
ALL OTHER ASSEMBLERS--A	700	850	18.3	30	10	20
ASSEMBLERS--B	2950	3450	16.1	110	50	60
MACHINE ASSEMBLERS--B	950	1100	14.6	30	10	20
INSTRUMENT ASSEMBLERS--B	400	550	49.2	30	20	10
ELEC MECH EQUIPMT ASSEMBLERS-	750	800	5.0	20	0	20
ELEC & ELECT ASSEMBLERS--B	1750	1900	7.7	50	10	40
AIRCRAFT,STRUCTURE ASSEMBLERS	100	100	-17.1	0	0	0
CLOCK,WATCH ASSEMBLERS--B	150	200	55.6	10	10	0
ALL OTHER ASSEMBLERS--B	1600	1850	14.6	60	20	30
ASSEMBLERS--C	54300	68500	26.2	2590	1420	1170
SURVEYORS HELPERS	1200	1400	18.7	50	20	20
CLOTHING IRONERS & PRESSERS	3250	3450	6.7	160	20	140
PRESSERS,HAND	200	200	1.0	10	0	10
PRESSERS,MACHINE	1200	1250	5.6	60	10	50
PRESSERS,MACHINE,LAUNDRY	1850	2000	7.8	90	10	80
CUTTING OPERATIVES,NEC	4300	4850	13.3	180	60	130
CUTTERS,MACHINE	550	650	16.4	30	10	20
CUT-OFF MACHINE OPERATORS,TUB	50	100	11.0	0	0	0
CUTTERS,PORTABLE MACHINE	50	100	20.6	0	0	0
DIE CUTTERS,CLICKING MACH OPS	550	650	18.3	30	10	20
GLASS CUT-OFF MACHINE OPERATO	50	100	32.8	0	0	0
RUBBER GDS CUTTER-FINISHER OP	550	650	20.6	30	10	20
TRIMMERS,PLASTICS	100	150	25.4	10	0	0
SHEAR &/OR SLITTER OPERATORS,	1550	1700	10.2	60	20	40
CUTTING MACHINE OPERATORS,FOO	300	300	0.7	10	0	10
DRESSMAKERS,EX FACTORY	1400	1350	-5.4	80	0	90

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DRILLERS,EARTH	500	550	10.5	20	10	10
DRILLERS,HAND	100	200	69.4	10	10	0
DRILLERS,MACHINE	100	100	1.9	0	0	0
ROTARY DRILL OPERATORS	150	150	-7.9	0	0	0
ROTARY DRILL OPER HELPERS	100	100	-7.6	0	0	0
DRY WALL INSTALLERS,LATHERS	1850	2200	18.3	50	30	20
DRY WALL APPLICATORS	1000	1250	21.5	30	20	10
LATHERS	150	100	-14.3	0	0	0
TAPERS	700	850	20.1	20	10	10
FILERS,POLISHRS,SANDRS,BUFFRS	10000	11000	10.2	370	100	270
FILERS,GRINDERS,BUFFERS,CHIPP	8600	9500	10.6	320	90	230
SANDBLASTERS/SHOTBLASTERS	650	700	9.2	20	10	20
GL GRINDERS/WATCH CRYS EDGE G	50	100	14.3	0	0	0
SANDERS,WOOD	550	600	6.3	20	0	20
GARAGE WORKERS,GAS STAT ATTNS	17200	16800	-2.6	260	-30	310
TRAILER RENTAL ATTENDANTS	150	200	26.6	10	0	0
FUEL PUMP ATTENDANTS,LUBRICAT	14900	14000	-6.0	170	-80	260
TIRE CHANGERS	2050	2500	20.7	80	40	40
LAUNDRY,DRYCLEANING OPS,NEC	5600	5900	5.6	290	30	250
MARKERS,CLASSIFIERS,ASSEMBLER	650	600	-7.3	20	0	30
SPOTTERS,DRYCLEANING	200	200	-7.5	10	0	10
SPOTTERS,WASHABLE MATERIALS	100	100	-7.1	0	0	0
WASHERS,MACH &/OR STARCHERS	2100	2400	15.7	130	30	100
TUMBLER OPERATORS	100	100	-3.7	0	0	10
DRYCLEANING MACHINE OPERATORS	700	750	8.2	40	10	30
LAUNDRY OPERATORS,SM ESTABLHM	700	800	12.4	40	10	30
RUG CLEANERS,HAND	150	150	-7.3	10	0	10
RUG CLEANERS,MACHINE	300	300	-7.7	10	0	10
FOLDERS,LAUNDRY	600	550	-7.4	20	0	30
MEAT CUTTERS,BUTCHERS	1700	1750	4.7	50	10	40
BONERS,MEAT	400	400	5.0	10	0	10
BUTCHERS,ALL-AROUND	1100	1150	4.7	30	10	30
CARCASS SPLITTERS	150	150	4.2	0	0	0
MINE OPERATIVES,NEC	2000	1850	-7.4	30	0	40
DERRICK OPERATORS,PETROL & GA	200	150	-17.1	0	0	0
DRIER OPERATORS,COAL OR ORE	100	100	0.9	0	0	0
LOADING MACHINE OPERATORS	100	150	21.3	10	0	0
ROUSTABOUTS	650	500	-23.4	0	-10	10
SERVICE UNIT OPERATORS,OIL WE	150	150	-14.3	0	0	0
PANELBD OPERATORS,GRIND MILL	150	150	-2.1	0	0	0
MILL &/OR GRINDER OPS,MINERAL	400	400	3.3	10	0	10

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MIXING OPERATIVES	1950	2050	3.8	50	10	40
COATING MIXER TENDERS	100	100	7.3	0	0	0
TINTERS	100	100	15.8	0	0	0
MIXERS,STONE,CLAY,GLASS,ETC	100	100	1.0	0	0	0
MIXERS,FOOD & TOBACCO	1450	1450	2.2	30	0	30
OILERS	1850	1950	5.7	70	10	60
PAINTERS,MFG ARTICLES	9650	9350	-3.5	170	-20	200
PAINTERS,AUTOMOTIVE	1750	2300	30.0	100	50	40
DECORATORS,HAND	100	100	0.0	0	0	0
RUBBERS	150	150	12.0	0	0	0
PAINTERS,PRODUCTION	7650	6750	-11.6	60	-80	150
PHOTOGRAPHIC PROCESS WORKERS	1500	1750	18.5	70	30	40
RIVETERS & FASTENERS	1100	1350	19.0	50	20	30
NAILING MACHINE OPERATORS	350	450	30.0	20	10	10
RIVETERS,HEAVY	350	350	7.8	10	0	10
RIVETERS,LIGHT	350	450	25.1	20	10	10
SAILORS & DECKHANDS	150	150	11.2	0	0	0
ORDINARY SEAMEN	100	100	7.4	0	0	0
SAWYERS	2250	2650	19.4	140	40	100
CUT-OFF SAW OPERATORS,LUMBER	450	600	27.3	30	10	20
EDGERS,AUTOMATIC &/OR PONY	100	150	33.3	10	0	10
HEAD SAWYERS	200	200	13.7	10	0	10
RESAWYERS	50	100	36.6	10	0	0
RIPSAW OPERATORS	350	400	21.4	20	10	20
SAWYERS,METAL	700	800	10.0	40	10	30
SAWYERS,PLASTICS	150	150	23.5	10	0	10
TRIM SAW OPERATORS	100	150	26.6	10	0	10
SEWERS & STITCHERS	9350	12400	32.6	730	310	420
MENDERS	350	350	6.0	20	0	10
SEWING MACH OPS,REG EQMT,NONG	6300	9000	43.3	570	270	300
SEWING MACH OPS,SPEC EQMT,NON	700	800	21.2	40	10	30
SEWING MACH OPS,SPEC EQMT,GAR	200	200	19.4	10	0	10
SEWING MACH OPS,REG EQMT,GARM	1800	1950	6.8	80	10	70
SHOEMAKING MACHINE OPS	950	1050	8.3	30	10	20
STITCHERS,STANDARD MACHINE	500	550	7.8	20	0	10
FURNACE TNDRS,STOKRS,EX METAL	2300	2150	-5.1	70	0	80
STATIONARY BOILER FIRERS	1950	1850	-5.4	50	0	70
KILN OPERATORS,MINERALS	300	300	-5.5	10	0	10
WINDING OPERATIVES,NEC	2650	3000	12.2	110	30	80
PAPER REEL OPS,REWINDER OPS	200	200	9.5	10	0	10
WINDERS,PAPER MACHINE	300	350	14.6	10	0	10
COIL WINDERS	1250	1350	7.2	50	10	40
AUTOMAT SPRING COILING MACH O	850	1050	20.5	40	20	30

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				TOTAL	GROWTH	REPLCMT
MISC MACH OPS,MEAT & DAIRY PRO	1500	1450	-2.9	30	0	30
PICKLERS,FOOD	100	100	4.8	0	0	0
PUMPERS,MEAT	50	100	4.1	0	0	0
CASING FINISHERS &/OR STUFFER	350	350	4.2	10	0	10
NOVELTY WORKERS	100	50	-22.9	0	0	0
FLAVOR ROOM WORKERS,FREEZER O	100	50	-22.5	0	0	0
DAIRY PROCESSING EQMT OPERATO	200	150	-23.9	0	0	0
MEAT GRINDERS	150	150	4.7	0	0	0
COOKS &/OR COOKERS	400	450	6.2	10	0	10
MISC MACH OPS,ALL OTH FOOD PRO	2550	2700	7.0	70	20	60
DEPOSITORS,FOOD	200	200	-0.9	0	0	10
WASHERS &/OR SEPARATORS,FOOD	250	300	10.6	10	0	10
FEED PELLET MILL OPERATORS	50	100	10.1	0	0	0
CANDY MAKERS	100	100	19.1	0	0	0
DOUGHNUT MAKRS/DOUGHNUT MACH	1000	1100	11.1	30	10	20
DIVIDING MACH OPERATORS,ETC	100	100	-6.3	0	0	0
OVEN OPERATORS	300	300	-1.0	10	0	10
DRIER OPERATORS	250	300	4.5	10	0	10
MISC MACH OPS,TEXTILE MILL PRO	100	150	38.3	10	0	0
LAMINATING MACHINE OPERATORS,	100	100	40.7	10	0	0
MISC MACH OPS,LUMBER PROD,FURN	1200	1450	21.6	50	30	30
POWER BARKER OPERATORS	150	150	12.1	0	0	0
GLUING MACHINE OPERATORS	100	100	11.8	0	0	0
WOODWORKING MACHINE OPERATORS	650	850	25.3	30	20	20
LAMINATING MACH OPERATORS,FUR	150	200	28.0	10	0	0
MISC MACH OPS,PAPER,ALLIED PRO	3450	3500	2.4	80	10	80
PULPERS	150	150	5.7	0	0	0
SUPERCALENDER OPERATORS	100	100	10.7	0	0	0
FOURDRINIER MACHINE TENDERS	250	250	4.6	10	0	10
BACK TENDERS	300	350	7.0	10	0	10
BEATERS	200	200	5.7	10	0	0
BEATER ENGINEERS	200	200	7.6	10	0	0
COATER OPERATORS,OFF-MACHINE	100	100	7.4	0	0	0
PRINTER-SLOTTER OPERATORS	200	150	-4.6	0	0	0
TAPING MACHINE OPERATORS	150	100	-12.0	0	0	0
WAXING MACHINE OPERATORS	100	100	-3.7	0	0	0
FLEXO-FOLDER-GLUER OPERATORS	100	100	-3.8	0	0	0
ENVELOPE MACHINE OPERATORS	100	100	15.4	0	0	0
BAG MACHINE OPERATORS	50	100	14.1	0	0	0
CORRUGATOR OPERATORS	100	100	-5.1	0	0	0
SCRAPPERS/STRIPPERS	100	100	-2.4	0	0	0
FOURTH/FIFTH HANDS,PAPER MACH	600	600	0.2	10	0	10

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MISC MACH OPS,CHEM,ALLIED PROD	4750	4450	-6.6	70	-20	100
AMPULE FILL,SEAL,WASH OPERATO	100	100	7.6	0	0	0
STILL OPERATORS,BATCH OR CONT	250	200	-24.2	0	0	10
CHEMICAL OPERATOR HELPERS	550	550	6.8	20	0	10
CHEMICAL OPERATORS A	2250	2000	-10.8	20	-10	50
CHEMICAL OPERATORS B	700	650	-9.1	10	0	20
DRIER OPERATORS,CHEM,PLAST,RU	150	150	1.4	0	0	0
CHIEF OPERATORS	500	450	-1.7	10	0	10
MISC MACH OPS,RUBBER,MISC PLAS	10150	11750	16.1	400	160	240
LEAD PRESS OPERATORS	50	100	21.6	0	0	0
RUBBER MILL OPERATORS	200	200	-12.9	0	0	0
PRESS OPS,DEVULCANIZED SCRAP	250	350	21.2	10	10	10
SPLICERS	100	50	-59.3	0	0	0
TIRE BUILDERS	350	150	-58.9	-10	-10	10
WATCHCASE VULCANIZER TENDERS	100	50	-58.5	0	0	0
PRESS TENDERS,RUBBER GOODS	350	400	23.3	20	10	10
EXTRUDER OPS,RUBBER OR PLASTI	600	750	21.8	30	10	20
EXTRUDER OP HELPERS,RUB OR PL	250	300	21.8	10	10	10
BLOW MOLDING MACHINE OPERATOR	250	300	29.4	10	10	10
CALENDER OPS,RUBBER OR PLASTI	100	150	8.3	0	0	0
VACUUM PLASTIC FORMING MACH O	100	100	28.2	0	0	0
FINISHERS,MACHINE	100	100	28.9	0	0	0
COMPR &/OR INJECT MOLD MA OPS	7100	8650	21.7	320	150	170
MISC MACH OPS,LEATHER & LEA GD	150	150	7.3	0	0	0
MISC MACH OPS,STONE,CLAY,GLASS	1300	1200	-6.3	20	0	30
LEHR TENDERS	100	150	40.9	10	0	0
JIGGER OPERATORS	100	50	-7.5	0	0	0
PRESS OPERATORS	400	400	-5.3	10	0	10
BLOCKMAKING MACHINE OPERATORS	100	100	-19.7	0	0	0
CONCRETE STONE FABRICATORS	150	100	-20.1	0	0	0
ABRASIVE GRINDERS	100	100	-6.2	0	0	0
CONCRETE VAULT MAKERS	100	50	-24.5	0	0	0
MISC MACH OPS,PRIMARY METALS	4600	5000	8.7	140	40	100
COILERS,WINDERS,&/OR SPOOLERS	300	250	-3.2	10	0	10
STRANDING MACHINE OPERATORS	100	100	1.1	0	0	0
DRAW-BENCH OPERATORS,TUBE DRA	200	200	3.1	0	0	0
COREMAKERS,MACHINE	1200	1200	2.0	30	0	30
EXTRUSION PRESS OPS,HOT BILLE	100	100	4.5	0	0	0
INSULATING EXTRUDING MACH OPS	250	250	1.2	10	0	10
PICKLERS,CONTINOUS PICKLING L	100	100	-1.3	0	0	0
ROLL FORMING MACH OPERATORS	250	300	10.7	10	0	10
DIE-CASTING MACH OPS,SETTERS	1600	1900	19.6	70	30	40
COIL TAPERS,HAND OR MACHINE	100	100	4.5	0	0	0
MULTI-SLIDE MACHINE OPERATORS	150	200	17.5	10	0	0

STATE OF MICHIGAN
PRELIMINARY
OCCUPATIONAL EMPLOYMENT PROJECTIONS
1980 - 1990
(FOR OCCUPATIONS OF 50 EMPLOYMENT OR GREATER)

OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
MISC MACH OPS,MFG,NEC	2800	2900	4.7	70	10	60
SCREEN/STENCIL PRINTERS/SETTE	250	250	9.1	10	0	10
COREMAKERS,HAND,BENCH,FLOOR	1100	1000	-13.1	10	0	20
FILTER/FILTER PRESS OPERATORS	100	100	-3.3	0	0	0
GRINDER OPERATORS	350	400	15.3	10	10	10
LAMINATORS,PREFORMS	350	450	39.5	20	10	10
PRESS OPERATORS,PLASTICS	150	200	21.5	10	0	0
INSUL WRAPPING/BRAIDING MACH	100	100	2.9	0	0	0
MISC MACH OPS,NONMFG	850	950	10.6	30	10	20
TIRE FABRICATORS,REPAIRERS	550	650	21.2	20	10	10
PHOTOLETTERING MACHINE OPERAT	100	100	-7.8	0	0	0
REFINERY OPERATORS,PETROLEUM	100	100	-4.9	0	0	0
OPERATIVES,NEC,DURABLE GOODS	2500	2850	13.7	100	30	60
FABRICATORS,PLASTICS	250	250	5.5	10	0	10
FINISHERS,HAND	400	450	22.6	20	10	10
PLATER HELPERS	1000	1250	20.5	50	20	30
WAX PATTERN WORKERS	250	250	2.1	10	0	10
WIRE DRAWERS	200	250	4.9	10	0	10
LAYOUT MARKERS,WOOD	100	100	28.0	0	0	0
OPERATIVES,NEC,NONDURABLE GDS	4550	4350	-3.5	100	-10	120
BAKER HELPERS	800	750	-6.4	10	0	20
COOLER ROOM WORKERS,MEAT	300	300	4.5	10	0	10
PRINTER-SLOTTER FEEDERS	150	150	-5.2	0	0	0
SKINNERS,ANIMAL	150	150	4.7	0	0	0
SMOKERS	100	100	4.5	0	0	0
SPRAYERS,HAND &/OR MACHINE	100	100	5.7	0	0	0
REFINERY OPERATOR HELPERS,PET	100	100	-9.0	0	0	0
CASTERS,PLASTICS	100	100	13.0	0	0	0
PRESS ASSISTANTS & FEEDERS	600	550	-7.0	10	0	10
COPY MARKERS	200	150	-6.8	0	0	0
MAILERS	1300	1200	-7.0	30	0	40
OPERATIVES,NEC,NONMFG	400	450	10.4	20	0	10
BILLPOSTERS	100	100	-5.0	0	0	0
EXTERMINATORS	250	300	20.6	10	10	10
TRANSPORT EQUIPMT OPERATIVES	121250	133750	10.3	3910	1250	2660
BUS DRIVERS	8850	9000	1.8	310	20	290
DELIVERY & ROUTE WORKERS	25750	29100	13.0	950	330	610
DELIVERY & ROUTE WORKERS	25450	28750	13.0	940	330	610
FURNITURE ASSEMBLERS & INSTAL	300	350	15.8	10	0	10

STATE OF MICHIGAN
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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
FORK LIFT,TOW MOTOR OPS	28450	31650	11.3	750	320	430
INDUSTRIAL TRUCK OPERATORS	28250	31450	11.3	750	320	430
LOG HANDLING EQUIPMENT OPERAT	150	150	12.3	0	0	0
PARKING ATTENDANTS	950	900	-7.7	50	0	60
RAILROAD BRAKE OPERATORS	2450	1950	-20.4	0	-40	40
TOWER OPERATORS	200	150	-27.9	0	0	0
TAXICAB DRIVERS,CHAUFFEURS	3350	3150	-5.6	130	-10	150
AMBULANCE DRIVERS/AMB ATTENDA	1650	1850	10.1	100	20	80
DRIVERS,ASSEMBLY LINE	150	200	27.3	10	0	10
TAXI DRIVERS	1050	650	-39.1	0	-30	40
CHAUFFEURS	450	450	0.0	20	0	20
TRUCK DRIVERS	51250	57850	12.9	1750	660	1090
TRUCK DRIVERS	51250	57850	12.9	1750	660	1090
ALL OTHER SEMISKILLED WORKERS	65650	70950	8.1	2130	530	1610
SERVICE WORKERS	603900	706150	16.9	35920	10230	25700
CLEANING SERVICE WORKERS	106650	116300	9.1	6570	970	5610
JANITORS & SEXTONS	106650	116300	9.1	6570	970	5610
FOOD SERVICE WORKERS	235600	297400	26.2	15400	6180	9220
BAKERS,BREAD &/OR PASTRY	1800	2100	18.0	110	30	80
BARTENDERS	13150	15950	21.3	910	280	630
WAITERS ASSISTANTS	10750	14300	33.5	470	360	120
COOKS,EX PRIVATE	40500	48550	19.9	2400	810	1590
COOKS,SHORT ORDER/SPEC FAST F	16250	20300	25.0	1060	410	650
COOKS,RESTAURANT	11950	15350	28.4	830	340	490
COOKS,INSTITUTIONAL	12350	12950	4.8	510	60	450
BUTCHERS &/OR MEAT CUTTERS	6200	6100	-1.8	210	0	220
WAITERS	74650	93300	25.0	4570	1870	2700
HOSTS/HOSTESSES,REST,LNGE,COF	5050	7000	38.2	390	190	190
WAITERS OR WAITRESSES	69600	86350	24.1	4190	1680	2510
FOOD WORKERS,NEC,EX PRIVATE	88550	117050	32.2	6720	2850	3880
KITCHEN HELPERS	31050	38700	22.4	2030	710	1330
FD PREP & SERV WKRS,FAST FD R	31500	49000	55.7	3270	1750	1520
PANTRY,SANDWICH,&/OR COFF MAK	2150	2800	31.7	160	70	90
ALL OTHER FOOD SERVICE WRKRS	23300	26550	13.8	1260	320	940
HEALTH SERVICE WORKERS	61150	79300	29.7	4200	1820	2380
HEALTH AIDES,EX NURSING	100	100	19.8	0	0	0
NURSES AIDES,ORDERLIES	61050	79200	29.7	4190	1810	2380
NURSES AIDES/ORDERLIES	53400	69400	30.0	3680	1600	2080
PSYCHIATRIC AIDES	1400	1800	30.0	100	40	50
MEDICAL ASSISTANTS	6250	7950	27.2	410	170	240

STATE OF MICHIGAN
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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
PERSONAL SERVICE WORKERS	57850	63500	9.8	3000	560	2440
FLIGHT ATTENDANTS	200	200	10.3	10	0	10
ATTNS,RECREATION,AMUSEMENT	5250	5900	13.0	250	70	180
RECREATION FACILITY ATTENDANT	3850	4350	13.7	180	50	130
GAME OPS,RIDE OPS,CONCESS WKR	700	850	19.2	40	10	30
PIN CHASERS	550	550	0.4	20	0	20
LIFEGUARDS	150	150	11.9	10	0	10
ATTNS,PERSONAL SERVICE,NEC	7600	9350	23.1	570	180	390
MORTUARY BEAUTICIANS	100	100	2.4	0	0	0
FUNERAL ATTENDANTS	400	400	3.3	20	0	20
MASSEURS OR MASSEUSES	50	100	73.1	10	0	10
INSTRUCTORS,REDUCING	2150	2400	12.7	140	30	120
HOUSEKEEPERS,HOTEL & MOTEL	4400	5750	29.8	350	130	220
CHECKROOM & LOCKER RM ATTNS	250	300	18.1	20	0	10
GUIDES,SIGHTSEEING OR ESTABLH	250	300	22.4	20	10	10
BAGGAGE PORTERS & BELLHOPS	600	600	1.0	30	0	30
BELLHOPS,BAG PORTERS,DRKPRS,E	450	500	5.3	30	0	30
BAGGAGE PORTERS	100	100	-16.5	0	0	10
BARBERS	3950	4150	5.4	240	20	220
CHILD CARE WORKERS,EX PRIVATE	11250	12700	12.9	710	150	560
CHILD CARE ATTENDANTS	1400	1700	20.3	100	30	70
CHILD CARE WORKERS	9850	11000	11.9	610	120	490
ELEVATOR OPERATORS	650	700	7.6	40	0	40
HAIRDRESSERS,COSMETOLOGISTS	21200	21900	3.3	880	70	810
COSMETOLOGISTS/WM'S HAIRSTYLI	20400	21050	3.2	840	70	780
MANICURISTS	250	250	4.5	10	0	10
SCALP TREATMENT OPERATORS	250	300	11.1	10	0	10
SHAMPOOERS	250	250	4.2	10	0	10
SCHOOL MONITORS	2250	2300	4.0	60	10	60
USHERS,LOBBY ATTNS,TICKET TAKER	1700	1750	3.3	40	10	30
WELFARE SERVICE AIDES	3300	3950	19.0	180	60	110
PROTECTIVE SERVICE WORKERS	69400	79450	14.5	3960	1000	2950
CROSSING GUARDS,BRIDGETENDERS	2850	2950	4.1	300	10	290
CROSSING OR BRIDGE TENDERS	1700	1750	3.6	180	10	170
SCHOOL CROSSING GUARDS	1150	1200	4.8	120	10	120
FIREFIGHTERS	9150	9550	4.5	160	40	120
FIRE FIGHTERS	6750	7050	4.4	120	30	90
FIRE INSPECTORS	250	250	4.6	0	0	0
FIRE OFFICERS	2150	2250	4.8	40	10	30

STATE OF MICHIGAN
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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
GUARDS	30600	38850	27.1	3010	830	2180
GUARDS & DOORKEEPERS	26200	33150	26.7	2570	700	1870
CHECKERS,FITTING ROOM	250	250	-1.6	10	0	20
FISH & GAME WARDENS	250	250	6.1	10	0	10
CORRECTION OFFICERS &/OR JAIL	3900	5200	32.7	420	130	290
POLICE & DETECTIVES	26400	27650	4.6	470	120	350
STORE DETECTIVES	600	650	11.6	10	10	10
RAILROAD POLICE	100	50	-27.8	0	0	0
POLICE OFFICERS	5900	6200	4.7	110	30	80
POLICE DETECTIVES	1550	1550	0.2	20	0	20
POLICE PATROLMEN/WOMEN	17950	18850	4.9	330	90	240
PARKING ENFORCEMENT OFFICERS	300	350	4.6	10	0	0
SHERIFFS & BAILIFFS	400	400	4.8	10	0	10
SHERIFFS	250	250	4.7	10	0	10
BAILIFFS	150	150	5.1	0	0	0
PRIVATE HOUSEHOLD WORKERS	39750	39050	-1.7	2560	-60	2630
CHILD CARE WKRS,PVT HOUSEHOLD	15850	15850	0.1	860	0	860
COOKS,PRIVATE HOUSEHOLD	950	750	-19.1	60	-10	70
HOUSEKEEPERS,PRIVATE HOUSEHOLD	3500	4050	16.6	350	60	300
LAUNDRESSES,PRIVATE HOUSEHOLD	250	100	-63.7	0	0	20
MAIDS,SERVANTS,PVT HOUSEHOLD	19250	18300	-4.9	1280	-80	1380
MAIDS,SERVANTS, PVT HSHLD	19250	18300	-4.9	1280	-80	1380
OTHER SERVICE WORKERS	33550	31150	-7.1	240	-230	470
SUPERVISORS,NONWORKING,SERVICE	7900	3500	-55.8	-300	-430	130
ALL OTHER SERVICE WORKERS	25500	27650	8.0	550	210	350
LABORERS,EXCEPT FARM	216800	230950	6.5	6200	1410	4780
ANIMAL CARETAKERS	2300	2700	18.0	130	40	90
CONST LABRS,EX CARPNTRS HELPRS	5350	5900	10.0	170	50	120
AIR HAMMER OPERATORS	300	350	23.6	10	10	10
FORM SETTERS,METAL ROAD FORM	150	150	9.9	0	0	0
FENCE ERECTORS	200	200	2.3	0	0	0
PIPELAYERS	900	1050	17.9	40	20	20
REINFORCING-IRON WORKERS	650	750	12.6	20	10	10
HIGHWAY MAINTENANCE WORKERS	2900	3050	4.7	70	10	60
ASPHALT RAKERS	200	200	26.9	10	0	0
FREIGHT,MATERIAL HANDLERS	5600	6200	10.2	170	60	110
CHAIN OFFBEARERS,LUMBER	200	250	22.5	10	0	0
LOADERS,CAR & TRUCK	50	100	18.6	0	0	0
OFF-BEARERS	300	400	20.6	10	10	10
LOADERS,TANK CARS &/OR TRUCKS	250	250	-0.4	0	0	10
CONVEYOR OPERATORS OR TENDERS	4650	5100	9.1	130	40	90
GARBAGE COLLECTORS	3100	3100	-0.3	80	0	80
GARDENRS,GROUNDSKEEPRS,EX FARM	21900	23550	7.5	1200	160	1030

STATE OF MICHIGAN
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OCCUPATIONAL TITLE	1980 EMPLOYMENT	1990 EMPLOYMENT	PERCENT CHANGE	ANNUAL AVERAGE OPENINGS TOTAL	GROWTH	REPLCMT
TIMBERCUTTING,LOGGING WORKERS	1450	1400	-1.6	40	0	50
FALLERS &/OR BUCKERS	1350	1350	-1.5	40	0	40
STOCK HANDLERS	34250	37200	6.7	690	230	460
ORDER FILLERS	10650	11650	9.4	240	100	140
STOCK CLERKS,SALES FLOOR	24200	25550	5.5	450	130	320
VEHICLE WASHERS,EQUIP CLEANERS	3900	4500	15.7	140	60	80
CLEANERS,VEHICLE	3850	4500	16.1	140	60	80
OTHER LABORERS	108350	146400	5.8	3580	810	2770
SETTERS &/OR DRAWERS	200	250	1.8	10	0	10
SHAKEOUT WORKERS,FOUNDRY	650	700	7.0	20	0	20
FURNACE OP HELPERS/HEATER HEL	350	350	3.1	10	0	10
RIGGERS	950	950	1.1	30	0	30
HELPER,TRADES	21150	24650	16.5	820	350	470
CANNERY WORKERS	1900	2050	6.1	60	10	50
LINE SERVICE ATTENDANTS	950	1000	0.5	30	0	30
FOREST CONSERVATION WORKERS	200	200	1.1	10	0	10
SEPTIC TANK SERVICERS,ETC	300	400	33.8	20	10	10
ALL OTHER UNSKILLED WRKRS	111550	115850	3.8	2580	430	2150
FARMERS & FARM WORKERS	92400	87800	-5.0	4710	-450	5170
FARMERS & FARM MANAGERS	54250	50650	-6.6	3470	-350	3830
FARMERS,OWNERS & TENANTS	53000	49000	-7.5	3370	-390	3770
FARM MANAGERS	1250	1650	32.2	90	40	50
FARM LABORERS,FARM SUPERVISORS	38150	37150	-2.6	1250	-90	1350
FARM SUPERVISORS	1250	1250	0.0	40	0	40
FARM LABORERS	36900	35900	-2.7	1210	-90	1310

JOB SERVICE APPLICANTS BY VETERAN STATUS
FISCAL YEAR 1983

MICHIGAN

	TOTAL	WHITE	BLACK	HISPANIC	AMERICAN INDIAN & ALASKAN NATIVE	ASIAN & PACIFIC IS
VETERANS						
TOTAL	34,620	27,189	6,687	431	101	32
VIETNAM	19,791	15,658	3,759	203	57	15
MALE VETERANS						
TOTAL	33,229	26,209	6,332	404	93	29
VIETNAM	18,935	15,051	3,534	189	53	13
FEMALE VETERANS						
TOTAL	1,313	931	331	26	6	3
VIETNAM	808	578	208	14	2	2

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
TOTAL	120,398	44,552	97,370	35,288	20,584	8,444	2,358	794
0&1 PROFESSIONAL, TECHNICAL, & MANAGERIAL TOTAL	14,838	5,976	12,699	5,047	1,905	857	218	71
00&01 ARCHITECTURE & ENGINEERING	1,996	190	1,770	162	173	22	50	6
02 MATHEMATICS & PHYSICAL SCIENCES	381	109	325	88	47	16	9	5
04 LIFE SCIENCES	330	157	220	106	105	49	5	2
05 SOCIAL SCIENCES	53	20	50	19	3	1	-	-
07 MEDICINE AND HEALTH	1,479	1,176	1,143	927	317	238	17	10
09 EDUCATION	1,624	1,097	1,396	937	204	149	21	11
10 MUSEUM, LIBRARY, AND ARCHIVAL SCIENCES	58	41	49	35	5	4	3	2
11 LAW AND JURISPRUDENCE	126	45	107	43	15	2	2	-
12 RELIGION AND THEOLOGY	21	5	19	5	2	-	-	-
13 WRITING	122	46	106	40	12	5	4	1
14 ART	357	175	313	166	37	6	7	3
15 ENTERTAINMENT AND RECREATION	275	98	233	87	41	11	1	-
16 ADMINISTRATIVE SPECIALIZATION	2,728	1,132	2,401	998	293	125	32	9
18 MANAGERS AND OFFICIALS, N.E.C.	4,573	1,330	4,053	1,182	471	136	46	12
19 MISCELLANEOUS PROFESSIONAL, TECHNICAL, AND MANAGERIAL	715	355	514	252	180	93	21	10

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE-Continued

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
2 CLERICAL & SALES TOTAL.....	26,707	19,167	21,098	15,272	5,226	3,627	367	258
20 STENOGRAPHY, TYPING, FILING, AND RELATED....	8,080	7,200	5,901	5,415	2,050	1,673	125	109
21 COMPUTING AND ACCOUNT RECORDING.....	8,652	7,256	7,029	6,010	1,508	1,155	109	85
22 MATERIAL AND PRODUCTION RECORDING.....	2,001	439	1,585	365	386	68	29	6
23 INFORMATION AND MESSAGE DISTRIBUTION...	1,536	1,310	1,225	1,066	294	232	17	12
24 MISCELLANEOUS CLERICAL.....	921	674	622	449	269	201	29	23
25 SALESPERSONS, SERVICES.....	434	162	377	143	53	17	4	2
26 SALES, CONSUMABLE COMMODITIES	551	309	422	250	122	56	7	3
27 SALES, COMMODITIES, N.E.C.....	2,437	833	2,151	710	257	109	27	14
29 MISCELLANEOUS SALES.....	2,095	984	1,786	864	287	116	20	4
3 SERVICE TOTAL.....	18,560	9,591	12,940	7,139	5,165	2,242	436	200
30 DOMESTIC SERVICE.....	584	482	375	304	190	161	17	15
31 FOOD AND BEVERAGE PREPARATION AND SERVICE.....	8,929	5,193	6,876	4,300	1,824	783	221	106
32 LODGING AND RELATED SERVICE	595	468	437	353	142	100	15	14

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE-Continued

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
3 SERVICE								
33 BARBERING, COSMETOLOGY, AND RELATED SERVICE	183	141	152	120	29	20	1	-
34 AMUSEMENT AND RECREATION SERVICE	131	46	94	33	35	12	2	1
35 MISCELLANEOUS PERSONAL SERVICE	2,577	2,069	1,533	1,258	1,001	775	41	34
36 APPAREL AND FURNISHINGS SERVICE	400	234	256	160	133	66	10	8
37 PROTECTIVE SERVICE	1,677	262	1,078	162	576	97	23	3
38 BUILDING AND RELATED SERVICE	3,484	696	2,139	449	1,235	228	106	19
4 FARMING, FISHERY, FORESTRY, & RELATED								
TOTAL	1,639	217	1,373	180	197	17	65	19
40 PLANT FARMING	1,195	149	959	114	182	16	53	18
41 ANIMAL FARMING	168	52	160	51	6	1	1	-
42 MISCELLANEOUS FARMING AND RELATED	111	5	101	4	3	-	6	1
44 FISHERY AND RELATED	17	2	16	2	-	-	1	-
45 FORESTRY	144	8	134	8	6	-	3	-
46 HUNTING AND RELATED	4	1	3	1	-	-	1	-
5 PROCESSING								
TOTAL	3,241	987	2,464	754	658	198	118	34
50 PROCESSING OF METAL	536	72	397	44	108	21	31	7
51 ORE REFINING AND FOUNDRY	676	55	476	31	167	22	33	2

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE-Continued

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
5 PROCESSING								
52 PROCESSING OF FOOD, TOBACCO, AND RELATED PRODUCTS.....	915	421	633	310	243	93	38	17
53 PROCESSING OF PAPER AND RELATED MATERIALS.....	17	2	17	2	-	-	-	-
54 PETROLEUM, COAL, NATURAL & MANUF. GAS, & RELATED PRODUCTS.....	19	2	16	-	2	1	1	1
55 CHEMICALS, PLASTICS, SYNTHETICS, RUBBER, PAINT, & RELATED.....	767	370	656	316	96	47	15	7
56 PROCESSING OF WOOD & WOOD PRODUCTS.....	61	13	60	13	1	-	-	-
57 PROCESSING OF STONE, CLAY, GLASS, & RELATED PRODUCTS.....	98	13	83	10	15	3	-	-
58 PROCESSING OF LEATHER, TEXTILES, AND RELATED PRODUCTS.....	64	18	57	15	7	3	-	-
59 PROCESSING OCCUPATIONS, N.E.C.....	88	21	69	13	19	8	-	-

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE-Continued

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
6 MACHINE TRADES TOTAL	15,313	1,900	13,494	1,578	1,527	279	287	42
60 METAL MACHINING	7,842	980	7,067	809	640	147	133	24
61 METALWORKING, N.E.C	2,455	601	2,026	500	365	88	63	12
62&63 MECHANICS AND MACHINERY REPAIR	3,902	75	3,410	52	424	22	66	1
64 PAPERWORKING	93	37	79	33	12	3	2	1
65 PRINTING	322	98	289	93	27	4	6	1
66 WOOD MACHINING	282	14	265	12	14	2	3	-
67 MACHINING STONE, CLAY, GLASS, & RELATED	24	3	22	3	1	-	1	-
68 TEXTILE	38	8	30	5	7	2	1	1
69 MACHINE TRADES, N.E.C	355	84	306	71	37	11	12	2
7 BENCH WORK TOTAL	6,676	2,981	5,752	2,588	768	321	153	72
70 FABRICATION, ASSEMBLY, & REPAIR OF METAL PRODUCTS, N.E.C	3,832	1,784	3,385	1,597	354	149	91	38
71 FAB & REP OF SCIENTIFIC, MEDICAL, OPTICAL, TIME & REL EQUIP	274	123	244	110	29	12	1	1
72 ASSEMBLY & REPAIR OF ELECTRICAL EQUIPMENT	619	252	514	208	97	40	7	4

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE-Continued

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
7 BENCH WORK								
73 FAB & REPAIR OF PRODUCTS MADE FROM ASSORTED MATERIALS.....	159	78	139	67	16	8	4	3
74 PAINTING,DECORATING, & RELATED.....	410	64	331	54	74	8	5	2
75 FAB & REPAIR OF PLASTICS, SYNTHETICS, RUBBER & RELATED.....	172	18	148	16	22	2	2	-
76 FABRICATION & REPAIR OF WOOD PRODUCTS.....	251	52	223	47	23	3	5	2
77 FAB & REPAIR OF SAND, STONE, CLAY, & GLASS PRODUCTS.....	114	33	98	28	13	4	3	1
78 FAB & REPAIR OF TEXTILE, LEATHER, & RELATED PRODUCTS.....	831	569	660	454	136	94	35	21
79 BENCHWORK, N.E.C.....	14	8	10	7	4	1	-	-
8 STRUCTURAL WORK TOTAL.....	18,044	1,188	15,077	790	2,623	367	338	31
80 METAL FABRICATING, N.E.C.....	4,569	743	3,386	446	1,105	281	78	16
81 WELDERS, FLAME CUTTERS, & RELATED.....	2,337	124	1,852	75	431	45	53	4

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE-Continued

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
8 STRUCTURAL WORK								
82 ELECTRICAL ASSEMBLING, INSTALLING & REPAIRING.....	2,437	161	2,176	136	231	16	30	9
84 PAINTING, PLASTERING, WATERPROOFING, CEMENTING & RELATED.....	753	18	630	11	101	6	22	1
85 EXCAVATING, GRADING, PAVING, & RELATED.....	725	9	679	9	36	-	9	-
86 CONSTRUCTION, N.E.C.....	6,039	108	5,376	93	530	14	129	1
89 STRUCTURAL WORK, N.E.C....	1,184	25	978	20	189	5	17	-
9 MISCELLANEOUS TOTAL.....	15,380	2,545	12,473	1,940	2,515	536	376	67
90 MOTOR FREIGHT..	3,303	95	2,911	80	351	14	41	1
91 TRANSPORTATION, N.E.C.....	1,599	260	1,224	189	346	70	26	1
92 PACKAGING & MATERIALS HANDLING.....	9,540	2,020	7,536	1,534	1,696	424	296	60
93 EXTRACTION OF MINERALS.....	314	19	305	18	5	-	3	1
95 PRODUCTION & DISTRIBUTION OF UTILITIES.....	257	13	197	9	56	4	4	-
96 AMUSEMENT, RECREATION, & MOTION PICTURE OCCUPATIONS, N.E.C.....	62	14	47	8	15	6	-	-

JOB SERVICE APPLICANTS
BY RACE, SEX, AND DOT CODE-Continued

MICHIGAN

	TOTAL		WHITE		BLACK		OTHER	
	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE	TOTAL	FEMALE
9 MISCELLANEOUS 97 GRAPHIC ART WORK.....	305	124	253	102	46	18	6	4

SOURCE: MESC BUREAU OF RESEARCH AND STATISTICS
PLEASE NOTE: 'APPLICANTS REFLECT THOSE ACTIVE AT END OF FISCAL YEAR 1983-OCTOBER 1, 1982-SEPTEMBER 30, 1983